THE STATISTICS NOBODY WANTS TO TALK ABOUT

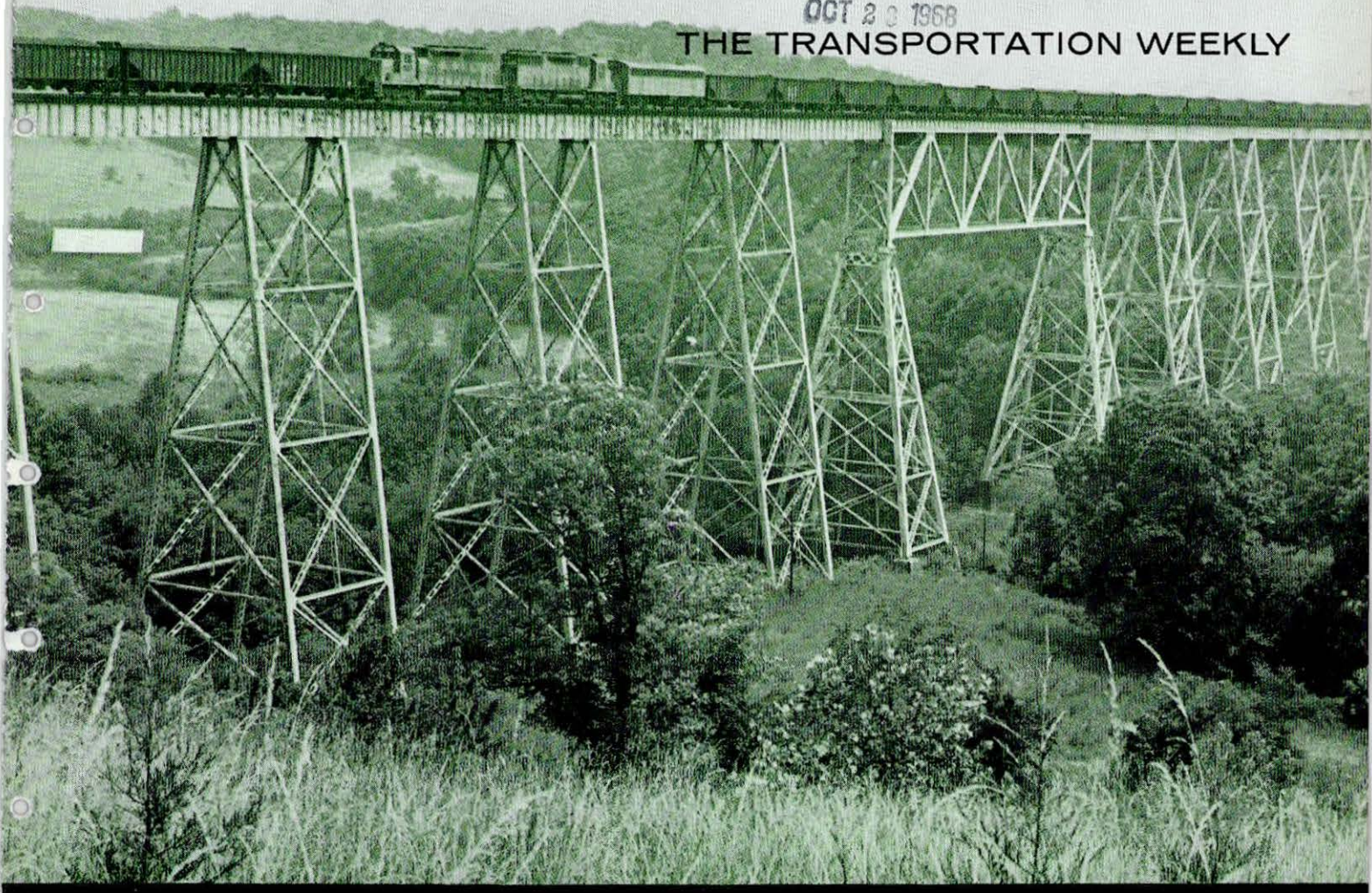
October 21, 1968

M. CARTNEY LIBRARY
GENEVA COLLEGE

RAILWAY AGE

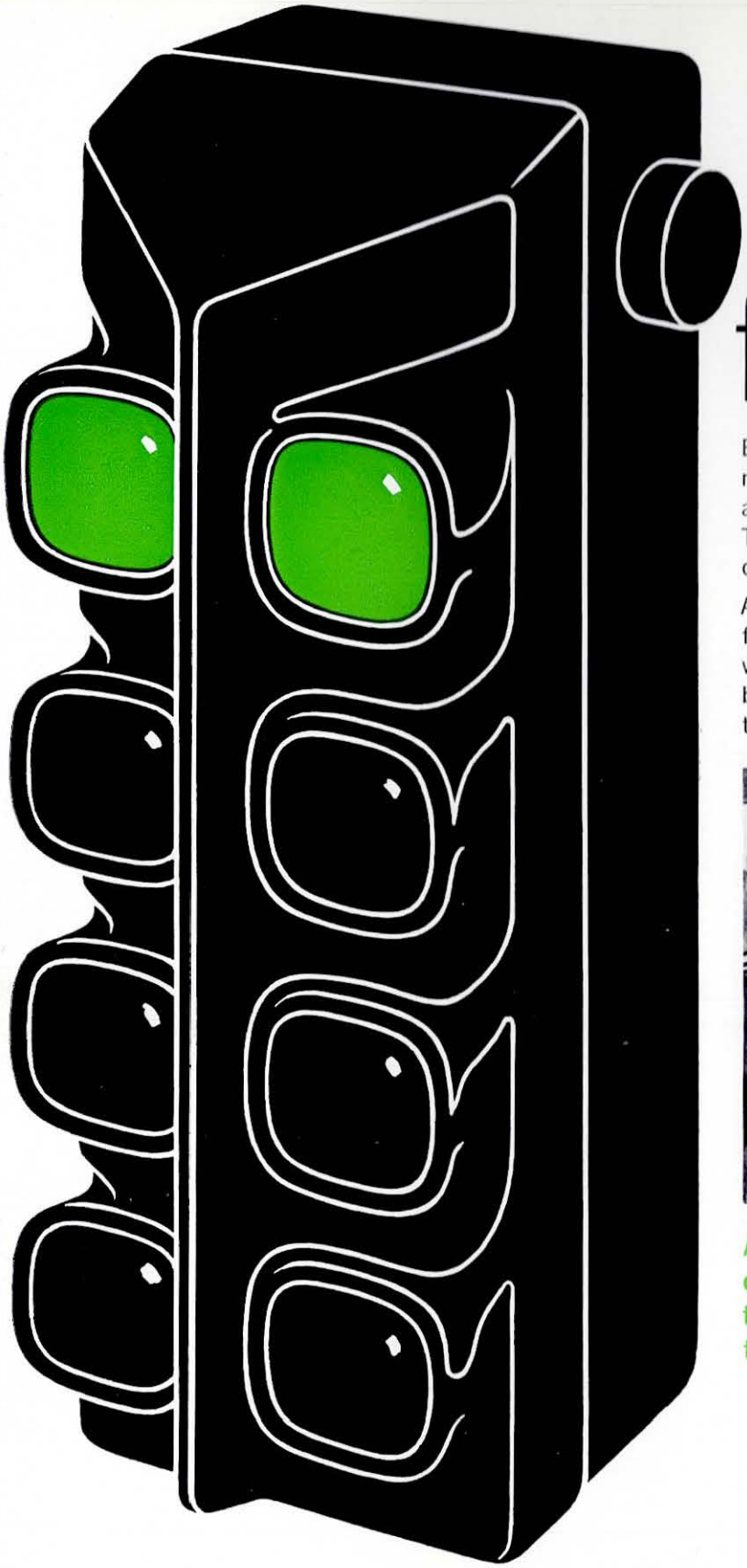
OCT 2 0 1968

THE TRANSPORTATION WEEKLY



How remotely controlled MOTIVE POWER cuts ton-mile costs

RD68 1116
GENEVA COLLEGE
MCCARTNEY LIBRARY
BEAVER FALLS PA
15010



a good sign for railroaders

Before sophisticated cab signals or diesel locomotives were in use, railroaders came to know and respect the Edgewater (E) as a good sign. This familiar symbol on wrought steel wheels has denoted quality for over half a century.

As today's trains continue to travel at increasingly faster speeds and carry heavier loads, Edgewater is meeting the railroad industry's needs by producing stronger, safer wheels for locomotives and passenger and freight cars.

Any railroad man who's spent time in the cab of a diesel locomotive recognizes this good sign. It's the cab signal that tells the engineer the right-of-way is clear.

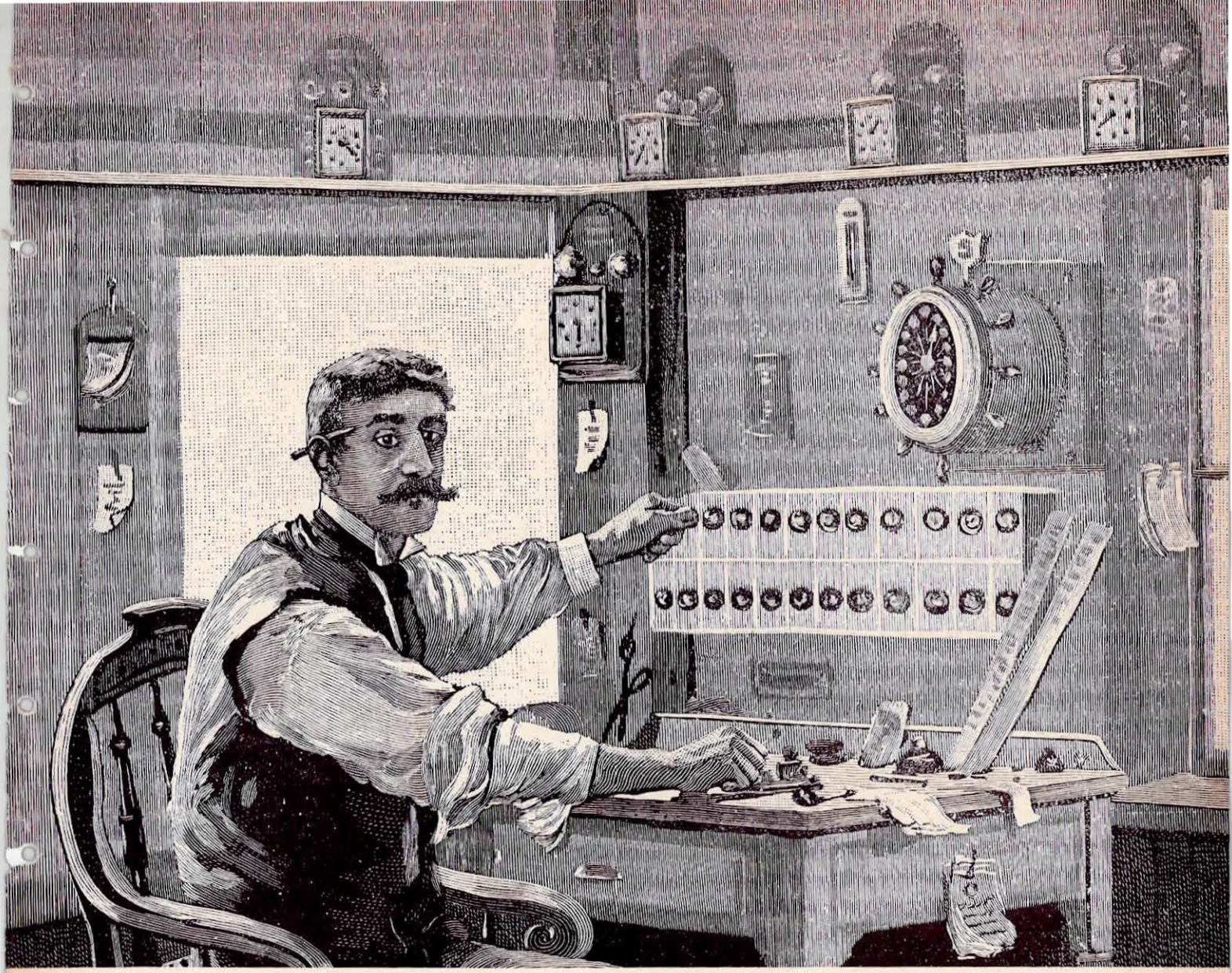
When you
want wheels of highest quality,
rely on this good sign.

MEMBER RPI RAILWAY PROGRESS INSTITUTE

EDGEWATER CORPORATION

P.O. Box 478 • Pittsburgh, Pa. 15230

Circle 4 on coupon page 41



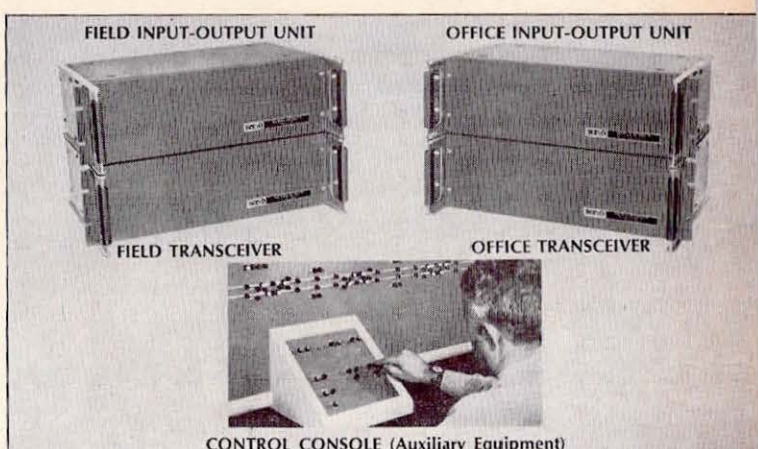
"Land sakes! What do they expect from one man? I told 'em I need a new Servoscan remote control system to handle all this traffic!"

SOUND familiar? The problem of efficient control of railroad operations hasn't really changed since 1888—it's just gotten worse. Today, railroad men face an ever-increasing array of new and more demanding competitive requirements—as well as the always-present factor of high labor costs.

To help railroads and rail transit operators achieve a greater degree of automation and economy, we've developed SERVOSCAN™, a new high speed solid state remote control system with self-checking reliability. SERVOSCAN is applicable to any multiple station installation that requires *control* of remote "ON-OFF" apparatus and *indication* (or monitoring) of remote "ON-OFF" contacts. Typical uses include centralized traffic control, multi-station interlockings, route check networks, classification yards, etc.

The integrated circuit design of SERVOSCAN makes it smaller, more reliable and less costly than equivalent non-vital relay equipment. A provision for manual stepping greatly simplifies field maintenance and checkout. Standard SERVOSCAN models are available to accommodate up to 64 remote field stations. A wide variety of control systems with different capacities can be easily assembled by merely stacking individual standard units.

Looking for a reliable and economical new way to improve your control system? Take a tip from our old friend, the 1888 dispatcher—take a look at SERVOSCAN. Just ask for Tech Data Publication 2006.



SERVOSCAN™ Remote Control System consists of four basic units: office transceiver, office input-output, field transceiver, and field input-output. Each unit measures only 5¼" x 11" x 17". Communication between office and field stations is by FSK carrier using return-to-zero coding. Auxiliary equipment is available from Servo on a custom-design basis, including control and display consoles, tape readers, solid state route check networks, manual local control panels, etc.

SERVO SYSTEM SERVICE—Servo Corporation of America backs up its railroad products with complete support and assistance—site survey, application engineering, detailed proposal, installation checkout, plus lifetime service and personnel training—all provided at no extra charge!

servo corporation of america

servo

railroad products division
111 new south road
hicksville, n.y. 11802
516-938-9700

MEMBER RPI

Circle 1 on coupon page 41

Africa is betting on the new

That's welded rail—and concrete ties—they're putting down in Rhodesia. Plainly, they think trains are here to stay! And why not? Check it out . . .

☐ **Roadway.** A single track of a double-track railroad can carry the load of an estimated 10 to 20-lane highway, if you can imagine such a monster.

☐ **Power efficiency.** Cubic inch for cubic inch, a giant railroad diesel's factor of cylinder wall friction is only about half that of a typical truck engine.

☐ **Rolling ease.** Nothing travels so easily as a steel wheel rolling on a steel rail. A highway tire strongly resists flexing (try pushing a car or truck).

☐ **Automation.** Transportation automation, like factory automation, depends on *guided movement*. Scientists struggle to develop a practical guidance system for cars and trucks. Guiding trolleys, perhaps. Maybe electronic

railway age

guidelines buried under the pavement. *Guidance is built into trains with the rails they ride on.*

☐ **Manpower needs.** They're low on a railroad, with its multiplicity of towed cars—compared with the driver-for-every-unit case of highway trucks.

Actually, if the train had come along *after* the car, truck and plane, it would have been hailed as a great advance! That's why—all over the world—the betting is heavy on railroads.

Here in America, every issue of RAILWAY AGE shows how the railroads themselves are betting on their future. What a place to talk about *your* look-ahead ideas!

Be part of the weekly excitement in **RAILWAY AGE** *the transportation weekly*

RAILWAY AGE

Oct. 21, 1968 • Vol. 165, No. 16

THIS WEEK

14 The statistics nobody wants to talk about

Why are fewer freight transport dollars going to the railroads?

16 How the L&N cuts its ton-mile costs

It's done with remotely controlled motive power in long trains.

29 ACI labeling still has a long way to go

Only about 30,000 cars have been prepared for ACI so far.

44 Viewpoint—That ACI labeling deadline

Labeling has been lagging, with the due date only 14 months off.

DEPARTMENTS

20	As the Publisher Sees It	42	People in the News
37	Freight Carloadings	7	Short and Significant
13	Lines on Labor	44	Viewpoint
8	Monday Morning Report	33	Watching Washington
37	New Equipment	12	Week at a Glance
41	New Products Report	40	You Ought to Know

. . . AND COMING NEXT WEEK

The containerization movement has been slow in coming, but it's picking up speed. Next week, Railway Age will report on what's going on in the world-wide containerization field—and how U.S. railroad participation will grow. The Traffic Poll will survey the attitudes of industrial traffic managers toward containerization and its problems. Another feature will describe the Union Pacific's new Bailey Yard. Like all Freight Traffic issues, this one will go to 10,000 shippers in addition to the regular subscription list.

Editorial and Executive Offices
New York, N.Y. 10007, 30 Church St.

ROBERT G. LEWIS: Publisher
LUTHER S. MILLER: Editor
FRED C. MILES: Executive Editor

Managing Editor: Edward F. Donlon
Transit Editor: Joseph Asher
Mechanical: F. N. Houser
Car & Locomotive Cyclopedia: C. L. Combes
Art Director: Joel Petrower
Art Editor: Maurice H. Mates
Art Assistant: Thomas J. Pendergast
Editorial Assistant: June Meyer
Director of Research: H. B. Bolander
Librarian: Edith C. Stone
Production Manager: Fred B. Hecht
Manager—Contract Department: Constance Nicolai

Editorial and Executive Offices
Chicago, Ill. 60604, 14 E. Jackson Blvd.

C. JAMES FISHER: Vice President—Sales
GUS WELTY: Senior Editor
Western Editor: Frank Malone
Mechanical: Robert D. Bartley
Engineering: M. H. Dick R. E. Dove
Signaling & Communications: Robert W. McKnight E. L. Abbott
Editorial Assistant: Wanda Brown

Washington, D.C. 20004, National Press Bldg.
Washington Editor: Walter J. Taft

London, W.C. 2, England, 4, Talbot House; 98 St. Martin's Lane
International Editors: Geoffrey Wilson John Levett

Contributing Editors:
Norman E. Gillespie
3205 Chelsea
Orlando, Florida 32803

Charles Layng
115 West Gore St.
Orlando, Florida 32806

E. L. Woodward
876 Chattanooga Ave.
Pacific Palisades, Calif. 90272

GEORGE DUSENBURY: Editorial Director

FOR LIST OF SALES OFFICES SEE ADVERTISING INDEX PAGE

Member of ABC RPI

Railway Age, established in 1856, is indexed by the Business Periodicals Index, the Engineering Index Service and the Public Affairs Information Service. Name registered in U.S. Patent Office and Trade Mark Office in Canada.
Published weekly (except for four issues combining two-in-one) by the Simmons-Boardman Publishing Corporation at Third and Hunting Park Ave., Philadelphia, Pa.
Railroad employees' subscription rate, U.S. possessions, Canada and Mexico, $6 one year, $9 two years, all others $15 for one year, payable in advance and postage paid. To railroad employees elsewhere in the western hemisphere, $10 a year. In other countries, $15 a year. Single copies, 60¢ except special issues. Address all subscriptions, changes of address and correspondence concerning them to Subscription Dept., Railway Age, P.O. BOX 961, Bristol, Conn. 06010.
Change of address should reach us three weeks in advance of next issue date. Send old address with new, enclosing, if possible, your address label. Post Office will not forward copies unless you provide extra postage.

Circulation Dept.: John Rogers, Director of Circulation, 30 Church St., New York, N.Y. 10007. POSTMASTER—SEND FORM 3579 TO P.O. BOX 961, BRISTOL, CONN. 06010.
Printed at the Periodical Press, Philadelphia, Pa. Second-class postage paid at Philadelphia, Pa. and at additional mailing offices.

SHORT AND SIGNIFICANT

Saunders gets transport award from NDTA

Stuart T. Saunders, Penn Central board chairman, received the 1968 Annual Transportation Award by the Secretary of Defense and the Joint Chiefs of staff Oct. 16. The award was presented during the National Defense Transportation Association's forum in Washington. Presented for outstanding accomplishments in the transport field, the award is a silver trophy symbolizing the wide influence of transport technology on national affairs.

Goodfellow heads U.S. delegation to Rail Congress

Thomas M. Goodfellow, AAR president, will head the official U.S. Government delegation to the 12th Pan American Congress of Railroads in Buenos Aires Nov. 11-23. Goodfellow is chairman of the U.S. National Commission in the Pan American Railway Congress Association. He will make the opening address at the Congress on behalf of all foreign delegations.

New DOT group will coordinate urban transport

Alan S. Boyd, Secretary of Transportation, has announced formation of the Urban Transportation Group to aim DOT's full range of programs, financial resources and talent at urban transportation problems. UTC responsibilities will include provision of a central contact point for inquiries about federal help in transport planning and projects; guarantee of full coordination of DOT programs on urban transport planning, projects and research; and coordination of DOT activities with those of other federal agencies. Chairman is John E. Robson, Under Secretary of Transportation.

Belt is buttoning up for a Chicago winter

The Old Farmer's Almanac is predicting a mild winter for the Midwest—but the strikebound Belt Railway of Chicago can't afford to take chances. With the walkout by the Brotherhood of Railroad Trainmen now almost three months old—and with no settlement in sight—the Belt is buttoning up. The most visible evidence: Locomotive cooling systems have been drained, units from the road's South Chicago roundhouse have been moved to the Clearing terminal for storage, South Chicago has been closed. Meanwhile, the Belt and many of the people who used to use its services kept applying pressure on the National Mediation Board. But the NMB seemed to be holding the line against certifying the situation as one deserving of emergency-board handling.

Boyd wants more transport improvements

One of the best contributions the transport industry can make to national defense is improvement of international service. Good transportation, like good communication, increases understanding among nations, Alan S. Boyd, Secretary of Transportation, said last week. "Events in Eastern Europe have reminded us of the importance of cooperation among members of the Atlantic community . . . Transportation is the economic mortar binding these Atlantic nations," Boyd said during the 23rd Annual Transportation and Logistics Forum of the National Defense Transportation Association in Washington. Failure to update transportation can't be tolerated in an age of containers and cybernetics. The way of improvement includes full reform of bills of lading and other paperwork, broader use of containers, and unification of codes, customs and laws regulating international shipment and insurance of goods, Boyd said.

Millington new president of MH Institute

George P. Millington, Jr., vice president and general manager, Industrial Battery Division, Gould-National Batteries, will take over Jan. 1 as president of the Material Handling Institute for 1969. Millington succeeds M. L. Aitken, vice president, Industrial Products Division, Robbins & Meyers.

MONDAY MORNING REPORT

PASSENGER TRAINS PROFITABLE?

The Interstate Commerce Commission's startling discovery that the railroads, in most recent years, have actually turned a profit on passenger-train service has struck various people in various ways. A typical railfan reaction has been: "At last we're getting close to the truth," A financial analyst, on the other hand, called the ICC report a myth by a mile, and suggested that it was a more suitable candidate for "Laugh-in" than for serious consideration in the financial community. But the ICC's new math is no laughing matter. It has been taken very seriously by newspaper editorial writers, and Senator Warren Magnuson was sufficiently impressed to ask for a thoroughgoing, new cost-finding study.

GOODFELLOW TOSSES OUT A CHALLENGE

The railroad industry's chief spokesman—AAR President Thomas M. Goodfellow—also takes a serious view of the Commission's arithmetical shenanigans. He points out that railroad passenger services suffered a net operating loss of $400 million in 1966 and $485 million in 1967—according to the ICC's own accounting rules. His word for the ICC report is "misleading." Last week he proposed a method to test the seriousness with which the government itself takes the Commission's revised figures. Addressing the annual meeting of the AAR's Treasury Division in Phoenix, he tossed out what amounted to a "put up or shut up" challenge.

WILL GOVERNMENT ITSELF TAKE THE RISK?

Goodfellow put his challenge in a series of questions: "Is the federal government willing to 'put its money where its mouth is'? Talk is cheap. Money is something else. Is the federal government willing to operate these so-called 'profitable' trains on their own money? If not, are they willing to underwrite any losses railroads can prove while operating the trains under government observation?"

IS THE ANSWER TO BE FOUND IN SUBSIDIES?

One answer, of course, would be to let freight customers absorb passenger deficits—but Goodfellow asked, "Does it make sense to increase our volume and efficiency on oranges . . . to make up what we lose on bananas?" Or, he asked, "should we accept subsidies to make up deficits—thus abandoning the free-enterprise posture we've advocated so strongly, for ourselves and for the continuation of the socio-economic system which has given more things, to more people, than any system on earth, at any time?" No answers were immediately forthcoming; and none was expected. Government continues to be more adept at stating transport problems than solving them.

IRJ

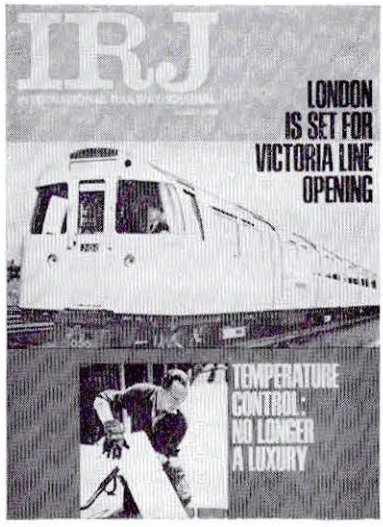
INTERNATIONAL RAILWAY JOURNAL

RAILROADING'S WORLD REPORTER

The truly international railroad magazine reaches 10,000 railway professionals in 114 countries

Where else could you find a better way to cover the world railway market outside the U.S. at monthly intervals and for a modest cost? In IRJ your advertising goes broad and deep around the globe–reaching the professionals in all railway departments the world over who are actively searching for new ideas in railway equipment, construction, operation and maintenance. Its coverage includes all classes of railways . . . common carriers and private carriers, industrial, mining, lumber as well as plantation railways.

IRJ's 10,000 readers obtain world-wide reporting of the whole range of developments, in management and operation as well as in the technical railway departments. European and regional editors are located on five continents. In 1967, major articles were published on 36 different countries, plus news articles or items on more than 90 countries. Articles are published in English with summaries in French, Spanish and German. Take the IRJ route to world railway sales. Your advertising will be in the company of progressive suppliers from 15 different countries. The number of advertising pages set a new all-time record for IRJ in 1967.



ABC MEMBER OF THE AUDIT BUREAU OF CIRCULATIONS

IRJ Circulation is certified by British ABC

IRJ

INTERNATIONAL RAILWAY JOURNAL

30 Church Street
New York, N.Y. 10007

67/68 Jermyn Street
St. James's, London SW 1, England

Want your ideas to carry more weight?

Use the wide range of USS high performance steels available, and hopper cars can gain several tons of payload per trip.

For example, USS COR-TEN A High-Strength Low-Alloy Steel is 40% stronger than carbon steel. It can be used in thinner, lighter sections to reduce weight without sacrificing strength.

USS COR-TEN A Steel has remarkable resistance to atmospheric corrosion—up to eight times that of carbon steel. It holds paint up to twice as long. And with corrosion damage accounting for the major portion of hopper car repair costs, USS COR-TEN Steel becomes a maintenance factor that can't be overlooked.

A lower-priced member of the USS Family of High Strength

Steels is USS TRI-TEN. It provides high strength and toughness, good fabricating and welding characteristics, and high resistance to fatigue.

USS EX-TEN High-Strength Low-Alloy Steel has a ratio of strength-to-cost better than any comparable material. An excellent weight trimmer that can permit thinner plates and sections, USS EX-TEN Steel also has good fabricating characteristics.

Any of these special steels will increase the durability and efficiency of the next freight cars you buy or lease. For more information, write United States Steel, P. O. Box 86 (USS 5625), Pittsburgh, Pennsylvania 15230.

USS, COR-TEN, TRI-TEN and EX-TEN are registered trademarks.

USS United States Steel

RAILWAY AGE
THE TRANSPORTATION WEEKLY
October 21, 1968

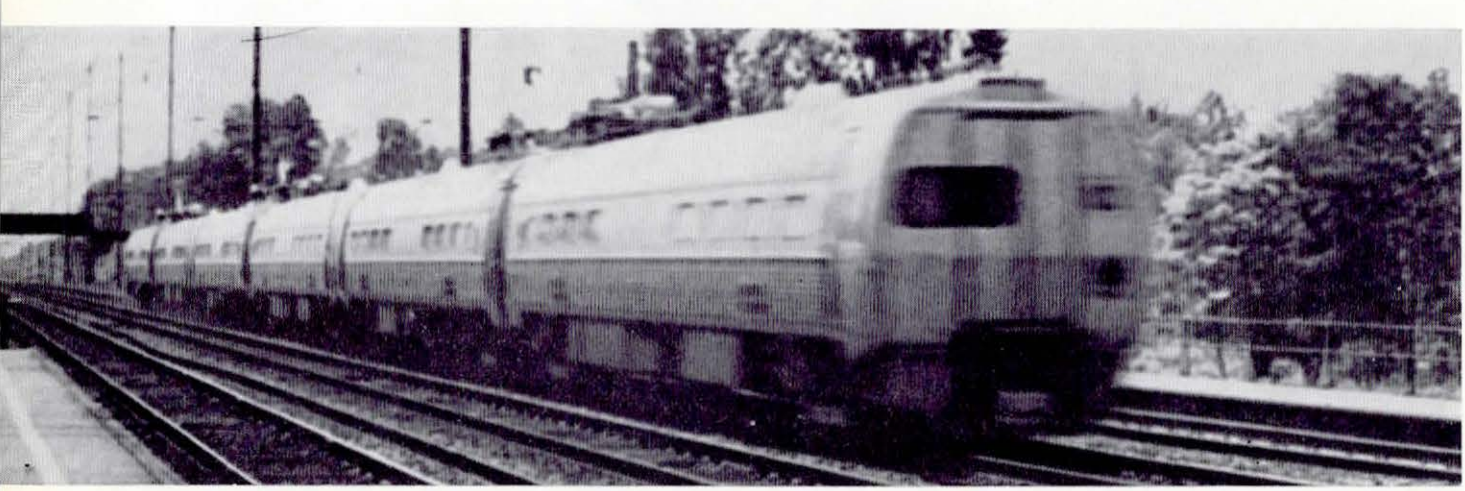
Fast rail route to NY airport is proposed

Getting into or out of New York's Kennedy International Airport by air is an experience that requires patience that even Job might get testy about. And as for getting into and out of Manhattan by land—forget it. At least that's been the experience of most recent air travelers to Fun City. But last week, Metropolitan Transportation Authority Chairman William J. Ronan had some hopeful news for distressed groundlings. He revealed plans for a revised highspeed Long Island Rail Road route which, he says, will be able to whisk passengers from Penn Station in the city to JFK Airport in sixteen minutes—and vice versa. Dr. Ronan said the new route—which will use the former LIRR Rockaway Branch right of way from Rego Park to the airport— will be submitted to the mayor and Board of Estimate "forthwith." A portion of the proposed route is now used by the city's transit system, and part of the line is not in use. Cost of the project is $46.5 million.

WEEK AT A GLANCE

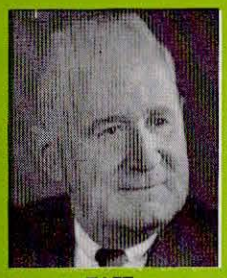
ICI, Abex directors approve a merger of companies

A formal agreement for merger has been signed by officers of Illinois Central Industries and Abex Corp., after approval by directors of the two companies. In the new agreement, offer terms have been improved: Abex shareholders would now receive 0.72 shares of a new issue of ICI second convertible preferred for each share of Abex common; the original offer called for an 0.65-for-1 exchange. The merger is subject to approval of shareholders of both companies at special meetings Dec. 4, as well as to a favorable tax ruling by the Internal Revenue Service. An exchange offer from North American Rockwell is also pending.



High-speed trains go through new Corridor testing

The cloud that has hovered for so many months over the high-speed "Metroliners" is now showing signs of lifting. It was disclosed last week that six of the cars, with General Electric propulsion and control equipment, had completed a full-scale demonstration run from New York to Washington in 2 hours and 52 minutes. The six cars had previously passed their tests on Penn Central's 21-mile test track between Trenton and New Brunswick, N.J., with flying colors. An additional 24 of the Northeast Corridor cars are equipped by General Electric—and a spokesman for the Budd Co., which is building the cars, said that all 30 are expected to be ready for revenue service within 60 days. Penn Central Chairman Stuart T. Saunders was quoted as saying that regular service might well begin before year's end. Meanwhile, a proposal is under consideration for renewed testing of 20 "Metroliner" cars carrying Westinghouse Electric propulsion and control equipment. These cars, plus 11 more built for the Southeastern Pennsylvania Transportation Authority, failed tests.



TAFT

MALONE

Taft retires as Washington editor; Malone gets post

Walter J. Taft is retiring as Washington editor of Railway Age after more than 40 years of service with this magazine. He is being succeeded in that post by Frank Malone, formerly western editor of Railway Age at Chicago. Taft will continue to contribute to Railway Age on a special-assignment basis.

In announcing Taft's retirement, Robert G. Lewis, publisher of Railway Age, commented: "Walter Taft's distinguished career in railroad trade journalism brought honor to himself, to the field he served, and to the publications he so ably and faithfully represented. His unimpeachable integrity, his objectivity, his constant search for the news behind the news—all of these attributes, and many more, created what we in the trade call a reporter's reporter, an editor's editor. His wise counsel will be valued for years to come—not only by his associates at Railway Age, but by many people in high places throughout the railroad industry and throughout government."

A graduate of Providence College and the Harvard Graduate School of Business Administration, Taft joined the staff of Railway Age in April 1928, after brief stints with the New Haven, the Bangor & Aroostook and the Boston & Maine. He was named Washington editor in April 1937.

Malone, who holds degrees in journalism and philosophy from Marquette University, joined Railway Age in June 1967 after working as a reporter for the Milwaukee Journal and as a public relations aide for the American Bar Association and the New York Central Railroad. He is a native of Elma, Iowa.

LINES ON LABOR

GUS WELTY

"TRAINMAN NEWS" the slickly-produced journal of the Brotherhood of Railroad Trainmen, has a special little feature known as "the bull." Each week, TN will publish a couple of sentences from the current writings or speakings of some industry figure, with no comment except that implied by the accompanying drawing of that bull. This column has received one bull, thus far—in pretty fast company, too, since the BRT's bull-list now reads like a who's who in the industry.

THE BRT'S EDITORS probably don't accept nominations for their award. But for anybody with a *picante* sense of humor, it would be hard to pass up the recent declaration of a well-known union leader: "We want more business for the American railroads, not less. We want more profits for the American railroads, not less." Then again, though, it is rather doubtful that Trainman News would give the bull to Charles Luna.

IF YOU PUT ASIDE the temptation to have a bit of fun with the BRT, it's possible to read a certain significance into this gung-ho, pro-railroad statement by the Trainmen's president. In the first place, he said it at the BRT's convention, before some 1,100 delegates, who might be suspected of having mixed feelings about union/industry relationships. It was a kind of self-serving comment that might have come during a Chamber of Commerce lunch speech.

SECOND, LUNA'S "more, not less" pitch ought to be considered in the context of over-all BRT programs—including the worthwhile series of seminars on mass transportation which the union has sponsored. It's worth noting, too, that Luna (perhaps more than any other rail labor leader) has tried to broaden his knowledge in both labor and railroading, worldwide. His junkets to Europe and the Far East have not been "junkets," in the say-it-with-a-sneer sense.

FINALLY, THE BRT PRESIDENT and his top advisors are far from blind to the changes taking place in the industry. They're well aware that a stronger industry can't be built on old concepts of the market or old concepts of service The hitch is that, up to now, nobody has found a workable way to harness the mutual needs of management and labor and start these two forces moving in the same direction. To be sure, it's hard to work together on one front while you're locked in combat on another. But, for the moment, there' no other way. There is, today, a limited dialog. All concerned should be hoping it continues—and grows.

The statistics nobody wants to

TABLE 1

Estimated Freight Revenue by U.S. Transportation Mode and Percentage of Total Estimated Freight Revenue 1958-1966 (Selected Years)
(Millions of Dollars)

	1958	1962	1966
Truck			
ICC regulated	$ 6,081	$ 8,062	$10,919
%	20.1	23.4	23.9
Non-ICC regulated	10,834	12,332	17,343
%	35.8	35.8	38.0
Total truck	16,915	20,394	28,262
%	55.9	59.2	61.9
Rail	8,748	8,699	10,152
%	28.9	25.3	22.3
All other modes	4,608	5,334	7,256
%	15.2	15.5	15.8
Total, including railroad	$30,271	$34,427	$45,670
%	100.0	100.0	100.0
Total, excluding railroad	$21,523	$25,728	$35,518

Source: Transportation Association of America, "Facts and Trends" Fifth Edition, April 1968, page 3.

TABLE 2

Rail Freight Revenue as a Percentage of Gross National Product
1958-1966

	Gross National Product (Billions of Dollars) Amount	Index (A)	Rail Freight Revenue (Millions of Dollars)	Rail Percent of GNP
1958	$447.3	100	$ 8,748	1.96
1959	483.7	108	9,017	1.86
1960	503.7	113	8,739	1.73
1961	520.1	116	8,436	1.62
1962	560.3	125	8,699	1.55
1963	590.5	132	8,873	1.50
1964	631.7	141	9,213	1.46
1965	681.2	152	9,695	1.42
1966 (p)	739.5	165	10,152	1.37

(A) 1958 = 100

(p) Preliminary estimate

Source: Transportation Association of America, "Facts and Trends", Fifth Edition, page 3.

TABLE 3

Ton-Miles of Rail, ICC Regulated Truck and Non-ICC Truck Intercity Freight, 1958-1966

	Rail		ICC Truck		Non-ICC Truck		
	Ton-Miles	% of Total	Ton-Miles	% of Total	Ton-Miles	% of Total	Total Ton-Miles
1958	559	68.6	84	10.3	172	21.1	815
1959	582	67.6	101	11.7	178	20.7	861
1960	579	67.0	104	12.0	181	20.9	864
1961	570	65.8	105	12.1	191	22.0	866
1962	600	66.0	112	12.3	197	21.7	909
1963	629	65.2	121	12.5	215	22.3	965
1964	666	65.2	126	12.3	230	22.5	1022
1965	709	66.4	140	13.1	219	20.5	1068
1966 (p)	751	66.3	148	13.1	233	20.6	1132

(p) Preliminary estimate

Source: Transportation Association of America, "Facts and Trends", Fifth Edition, April 1968, page 8.

talk about

After years of steady decline, the railroad share of total intercity freight ton-miles has leveled off at between 42% and 43%—a statistic which railroad men, in public addresses, are fond of citing as proof that the railroads have turned the corner and again are a growth industry. Less talked about—almost to the point of silence—are some less attractive statistics: the railroad share of revenue dollars; the growth of railroad revenues plotted against the growth of GNP. In raising these issues in the following article, author James Laurie freely concedes that he has more questions than answers—"But if we don't start facing the questions squarely, we aren't likely to find the answers." A veteran of 19 years in the traffic and executive departments of the Jersey Central Lines, Laurie later became a partner and a vice president in the transportation consulting firm of Wyer, Dick & Co. He is now an independent consultant.

TABLE 4

Revenue Per Ton-Mile For Rail (Class I) and Truck (Class I) 1958-1967

	Rail (Class I)		Truck (Class I)	
	Revenue (Cents)	Index	Revenue (Cents)	Index
1958	1.46	100	6.19	100
1959	1.45	99	6.28	101
1960	1.40	96	6.31	102
1961	1.37	94	6.30	102
1962	1.35	92	6.41	104
1963	1.31	90	6.38	103
1964	1.28	88	6.66	108
1965	1.27	87	6.80	110
1966	1.26	86	6.90	111
1967 (p)	1.27	87	7.10	115

(p) Preliminary estimate

Source: Transportation Association of America, "Facts and Trends", Fifth Edition, April 1968, page 6.

By JAMES LAURIE

Recent statements made by people prominent in the railroad business paint a gloomy picture of the current railroad situation as well as prospects for the future.

Mr. A. Scheffer Lang, Federal Railroad Administrator, Department of Transportation, had this to say in a speech in Minneapolis on June 19: "In 1958 the railroads pulled in about 32% of the dollars spent for intercity freight transportation, but in 1967 they realized only 24%. The message is inescapable: the railroads are being squeezed out of the market for transportation!

"To be more explicit: the economy is devoting less and less of its freight transportation dollars to the purchase of railroad transportation. That is, the railroad product is becoming less and less attractive to the market as a whole!"

In his supplemental verified statement in Ex Parte No. 259, Increased Freight Rates, 1968, Mr. Burton N. Behling, vice president, Association of American Railroads, says:

"Briefly summarized, the railroads submission showed for the year 1968 without further rate increases that increased revenue generated by an unexpected 3.6% increase in freight ton-miles in 1968 over 1967, and by the moderately higher level of freight rates authorized last year in Ex Parte No. 256, would be fully consumed by escalating costs, leaving net earnings for the year 1968

at the very low level to which they fell in 1967. It was further shown that with the same increased level of freight traffic and with second-half 1968 cost levels, the proposed X-259 increases when applied for a full 12 months would fall short of restoring railroad earnings even to the modest level of the year 1966. Earnings would still be low and inadequate by any reasonable standard."

Generally, the thrust of Mr. Behling's testimony seems to say that the financial prospects for the railroads are not very bright.

Railroad officials and analysts often point to the "fact" that for the past few years the railroads' share of intercity freight ton-miles seems to have leveled off at about 43% as an indication that the railroads are becoming more competitive.

What is the true railroad situation? The figures in Table 1 show: Since 1958:

—The rail share of the nation's estimated freight bill has declined about 23%.

—Rail freight revenue has increased 16%.

—Total freight revenue, *including* rail, has increased 51%.

—Total freight revenue, *excluding* rail, has increased 65%.

In other words, from the all-important standpoint of revenue, the railroads have not been keeping pace with the other modes of transportation, notably motor trucks.

For ICC regulated trucks, the figures in Table I show:

—Since 1958, the ICC regulated trucks' share of the nation's estimated freight bill increased almost 19% (compared with the rail decline of 23%).

—Since 1958 ICC regulated truck revenue has increased 80% (compared with rails' 16% increase).

For non-ICC regulated trucks, the figures show:

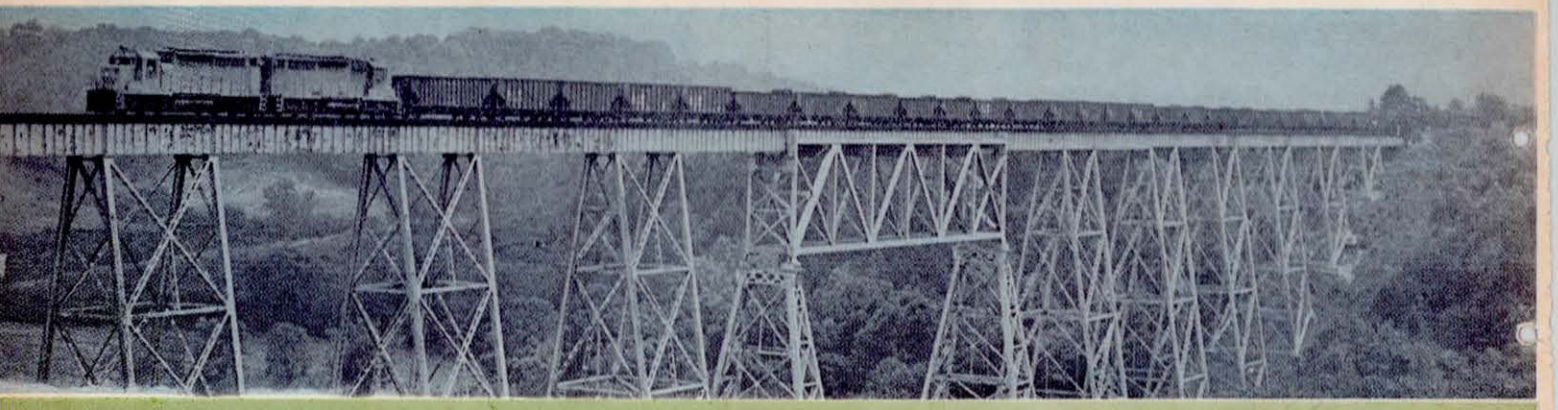
—Since 1958 the non-ICC regulated trucks' share of the nation's estimated freight bill increased over 6%.

—Since 1958 non-ICC regulated truck revenue increased about 60%.

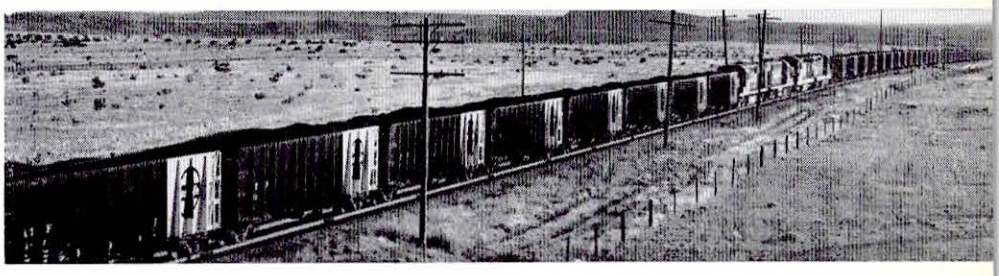
(*Continued on page 36*)

RMU PANELS atop and beside locomotive controller (above) show engineman status of two remote units located 200 cars back in his train (below). L&N uses RMU power car with remote units to increase locomotive utilization.

How L&N cuts ton-mile costs



MANY ROADS USE LOCOTROL
Canadian Pacific (left) has appraised Locotrol-equipped "robot" car for its Rocky Mountain service; Santa Fe uses Locotrol slave units in Kaiser unit coal train (below), has recently tested them in high-speed freight service.



Operating techniques have been perfected as experience with long coal trains proves the utility of remote locomotive units.

When the subject of high-tonnage trains comes up these days, the Louisville & Nashville should be mentioned. The L&N has added a new yardstick for what constitutes a high-tonnage train.

For over six months, coal trains approaching 300 cars, as much as 26,000 tons, have been moving on a regular basis from Ravenna to DeCoursey, Ky., south of Cincinnati. The trains, six a week, move over 118 miles of rolling terrain on a single-track right-of-way without special signal spacings and with regular crews and standard equipment. The result is, says L&N, "high capacity" railroading with reduced ton-mile costs.

● **Remote multiple unit.** The operation is made possible by a Remote Multiple Unit (RMU) control system. Designed, manufactured and installed by Wabco's Westinghouse Air Brake and Signal & Communications Divisions, RMU permits motive power to be placed far back in a train while being controlled by an engineman in the lead locomotive. The remote controlled locomotive units, usually two-thirds of the way back in the train, provide pushing power for the middle third of the train and pulling power for the back third.

Radio signals perform the same functions as multiple-unit hoses and jumper cables between locomotive units. RMU actually does much more than just connect remote locomotive units to the engineman's control console. Brake applications, brake releases and power commands are duplicated at the speed of light deep in the train through a coded space radio communications link for fast, routine handling of almost three miles of cars. As Albert Rice, superintendent of locomotive operations on the L&N, commented: "It handles like a passenger train. You could thread a needle with it."

● **Three-mile train.** A typical arrangement of an RMU-controlled train on the L&N consists of two EMD SD-35 locomotive units at the head end, approximately 200 hoppers trailing, two more SD-35 locomotives, a power car, another 100 hoppers, and a caboose. The lead unit, manned by an engineman and brakeman, is similar to any other locomotive except for two additional control consoles. A Selector and Indicator Console, located above the locomotive controller, contains selector switches, pushbuttons and indicating lights that enable the engineman to control the remote units independently of, or in synchronism with, the lead unit. This console also gives visual and audio indications of the remote locomotive's responses to commands and its operational status at all times.

Instead of the conventional brake valve (which is pinned in "Release" position during RMU operation), the engineman exercises control over all brake functions by means of a Brake Control Console at the left side of the brake valve stand. Applications and releases of train brakes and locomotive brakes are made by pushbuttons, with an emergency application initiated by a large red knob. Located under the short hood of the lead locomotive are two cabinets which contain all of the control logic circuits as well as radio coding, transmitting and receiving equipment necessary to communicate with the remote locomotive.

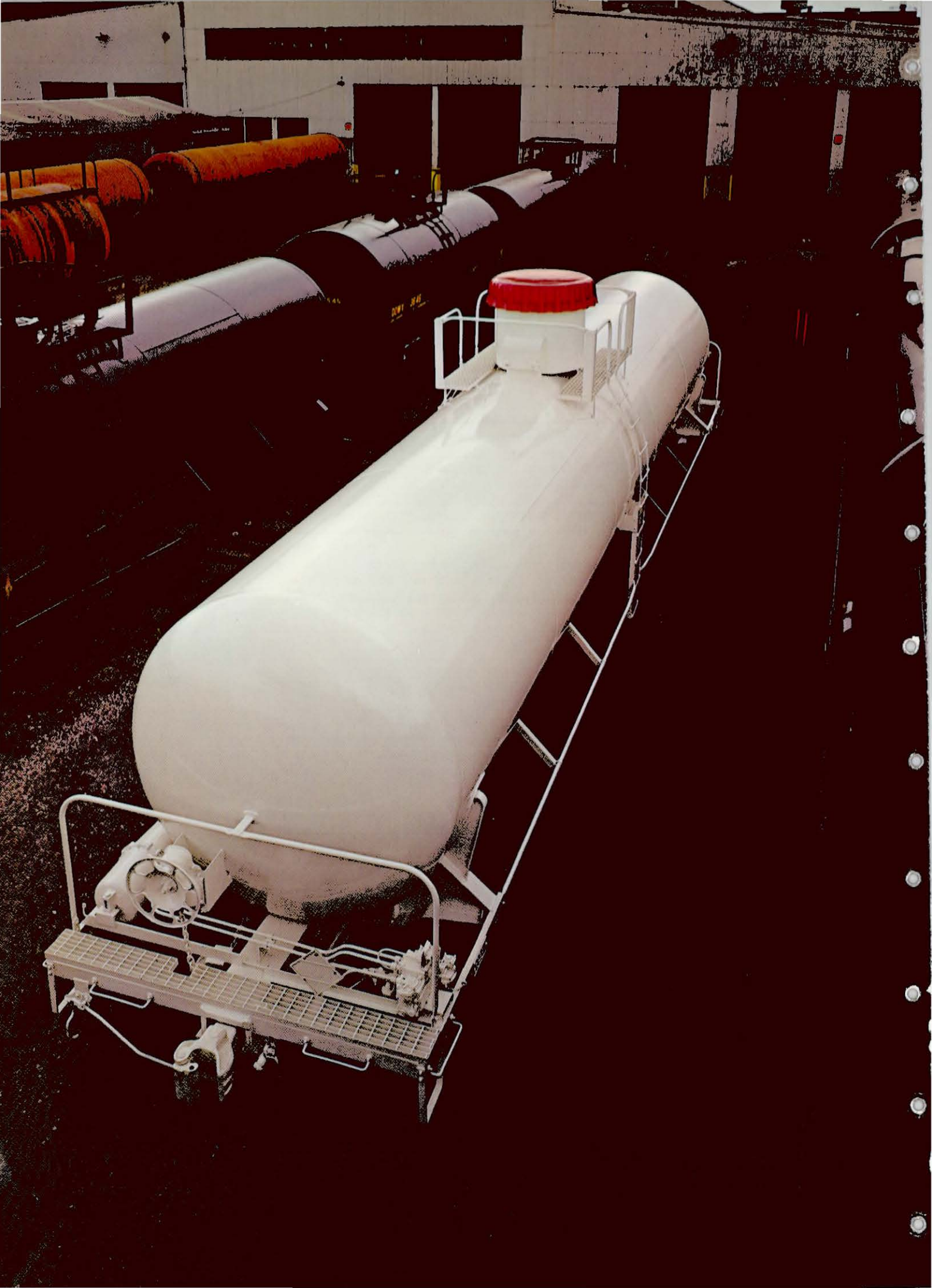
● **Power car.** The remote, unattended locomotive units are actually controlled by the trailing power car which receives the radio control commands from the lead unit. The power car is a stripped B unit converted by removing all propulsion equipment and adding the RMU control equipment and two ballast tanks for weight. The power car concept was adopted by L&N to produce maximum utilization of remote locomotive units, since any number and grouping of units may be used with the RMU-equipped lead locomotive and power car. The two control cabinets in the short hood of the lead locomotive are duplicated in the power car to complete the loop of the system's communication, functional commands and response outputs.

There is some training required for enginemen to operate RMU controls and three-mile-long trains. Thirteen enginemen have been qualified on L&N to operate an RMU train. The equipment's versatility permits smooth handling of a train in spite of its length and tonnage. Break-in-twos and broken knuckles are rare, now that operating techniques have been refined.

Fine control of slack in starting, for instance, is possible because the remote power units can be either synchronized with the lead units or independently controlled. In leaving Ravenna yard, for instance, a ruling grade of 0.6% confronts a train immediately. By operating the remote units two throttle positions higher than the lead locomotive while starting, pushing reduces the drawbar strain on the lead locomotive and cars.

● **Improved braking.** Because the train brake pipe is charged in three directions (lead locomotive back, and remote locomotive forward and back) the terminal test is much quicker. In a typical train movement there was only a 2 psi gradient from the lead locomotive to the caboose on a 279-car train. The undulating terrain brought about such operating techniques as having the lead units in dynamic braking and the remote units in fourth throttle position. Observers report that despite side-tracking stops and starts for opposing trains as well as speed and signal restrictions, there will normally be no slack action over the 118-mile stretch. With brake application and release times so much faster, maximum speeds can be maintained longer when approaching restrictions.

Another benefit is the overcoming of bad track conditions. Lead locomotive sanding is supplemented by the remote units pushing on good, dry track. By the time the remote locomo-



No deposit.
Many returns.

No deposit! When you lease tank cars from GATX you don't tie up capital.

But you enjoy many returns when you lease from GATX. You enjoy all of the benefits of ownership... and then some. But you are not burdened with the responsibilities.

You are protected from the dangers of obsolescence. When your needs change... GATX changes your cars.

Leasing gives you the flexibility to meet requirements without a costly inventory of equipment.

GATX does all of the time-consuming, costly accounting and record keeping, and is responsible for the maintenance and repair of any tank cars you lease.

And with the experience we have, as the world's largest lessor of tank cars, we can continually suggest new ways for you to improve your shipping methods and cut shipping costs.

Give us a call, or write. You'll find that things go better with GATX.

TANK CAR DIVISION
GENERAL AMERICAN TRANSPORTATION CORPORATION, CHICAGO

GATX™

ROBERT G. LEWIS

AS THE PUBLISHER SEES IT:

Technology for Better train handling

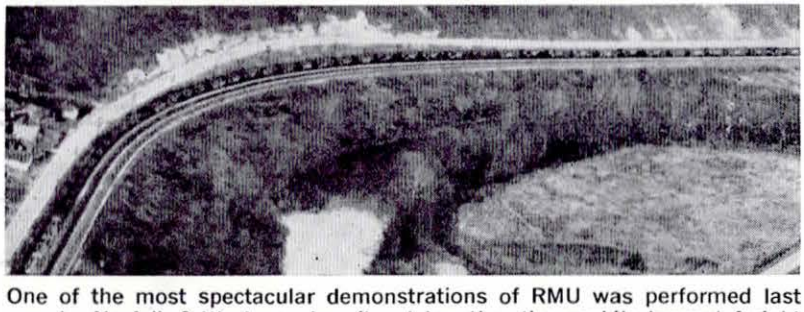
RMU—which stands for remotely controlled multiple unit—is probably the key to successful operation of giant trains, 300 cars or more. That is the subject of a story featured in this issue. But RMU has a lot to offer toward better railroading than just ability to operate super-length trains (and anyway such trains aren't contemplated, or indeed desirable, for other than a relatively limited number of applications, and especially bulk or unit-train types of operations).

RMU provides for distribution of the motive power in the train with obvious benefits from the standpoint of traction. Of equal importance it provides greatly improved braking characteristics. Placement of the slave unit two-thirds of the way behind the lead locomotive—supplying air both fore and aft, gives braking characteristics—in the case of the 300-car train—nearly equal to that of three trains of only 100 cars each. Even in much shorter trains, the mid-train boost to train air line pressure will provide quicker response and smoother brake action. The mid-train air supply provides much faster charging at initial terminals, and quicker restoration of train line pressure after cutting for set offs or pick ups, or emergency applications, cutting both terminal and road delays sharply.

Of great importance, RMU will lessen or obviate the need for reduction of train lengths in cold weather conditions, when head end power alone is inadequate to maintain pressure throughout very long trains.

The contribution to reduction in loss and damage could be significant. All of which raises the question: Is there a compromise which can give many of the benefits of RMU for less lengthy trains, for which the full costs of RMU might not be justifiable—a compromise which would make better train handling available for ordinary-length merchandise freight trains? Why not equip the caboose (which railroads haul around only because they are obliged to) with a diesel engine and compressor, and RMU the rear end brake equipment with less complex, less costly radio control from the locomotive?

Certain technicalities would have to be worked out, but most of the technology is already in hand as a by-product of the RMU-ing of complete motive power units. Both the Boston & Maine and Great Northern have some experience in these areas, but their experiments with rear end air supply did not include the radio-actuated control features now at hand.



One of the most spectacular demonstrations of RMU was performed last year by Norfolk & Western when it put together the world's longest freight train—500 cars—powered by three SD-45s on the head end and three other units 300 cars back. The giant coal train was run from Iaeger, W.Va., to Portsmouth, Ohio, a distance of 159 miles.

tives reach this section, the track is in much better condition for adhesion of the wheels.

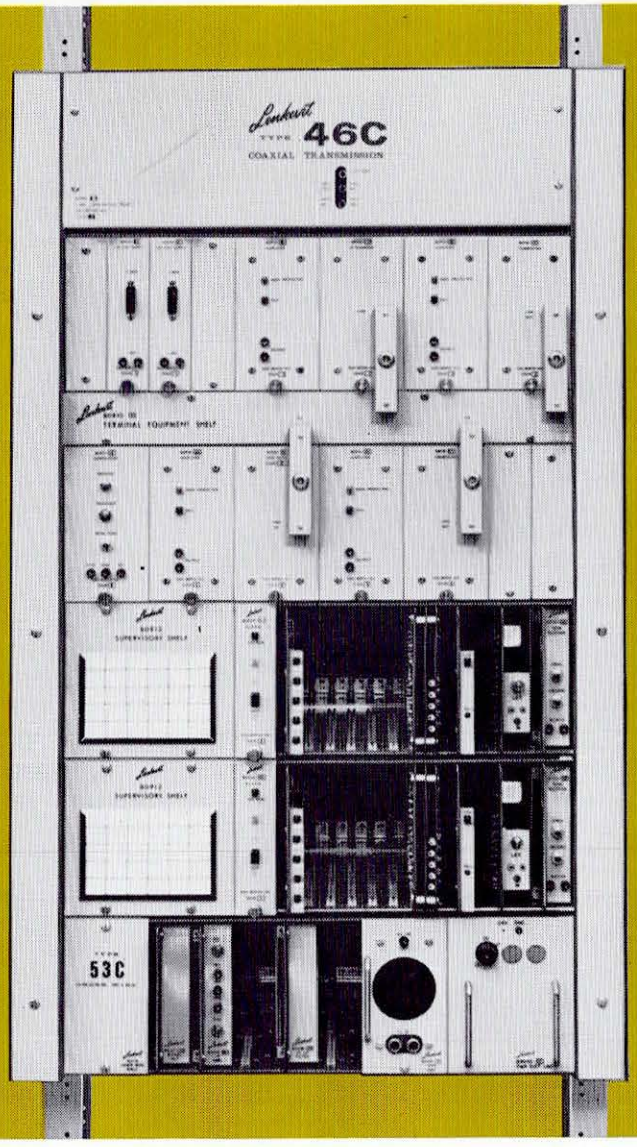
● **The radio link.** The radio communication link between the two units is provided by a solid-state radio transmitter and receiver with the signal frequency modulated by the coding system. Each radio transmission, either from the lead or remote unit, is preceded by an address code to permit simultaneous operation of several RMU-equipped trains in the same area. Any address can be selected on the remote units by a combination of toggle switches, allowing the power car to be used with any lead locomotive.

Radio transmissions are made to the remote units every time a change in control status is requested by the engineman, or every 20 seconds if there is no change. The status of all control functions is included in every transmission. The remote transmitter must respond immediately with a return transmission acknowledging changes or status. Many different arrangements of sending and response time periods are built into the system to insure proper communication.

Standby radios and other fail-safe methods are employed to protect equipment and crew. Should a tunnel or some other obstruction interrupt the transmission or receiving of the control signals for 45 seconds or more, a "loss of continuity" condition exists and lights a light on the Indicator Console. In this event the remote locomotive will prepare for throttle or dynamic brake step-back in the event of a service application being made by the engineman. It will remain, however, in its last prescribed control status if no brake application is made. When continuity is restored, it will respond to any changes made during the loss of communication.

● **Remote units' status.** The selector and indicator console notifies the engineman when the remote locomotive's wheels slip, if a hot engine condition exists, or when a ground relay drops out. It indicates whether the remote units are at idle, or in a specific throttle or dynamic brake position. Pushbuttons and switches control the remote units sanding, ground relay reset, throttle and dynamic brake advance and retard, and operation independently or in the same mode as the lead locomotive. Air brake train line charging at the remote units can be cut in or out from this console by the engineman.

Pushbutton braking is another feature of an RMU-equipped train. Service and independent brake applications are initiated through, and controlled by, how long an electric button is held depressed. Release of the button stops the application. A brake release is accomplished by a single touch of the train or independent release button. ■



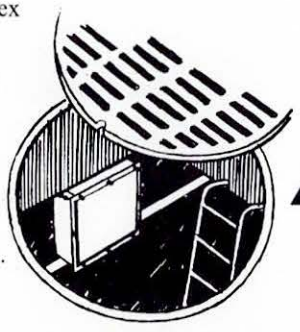
Introducing the 46C Coaxial Cable Transmission System by Lenkurt: A new solution to your high-density communications problems.

Lenkurt's new 46C Coaxial Cable Transmission System is the economical way to expand communications routes in areas where microwave frequencies are congested. It's equally efficient as a terminal-to-terminal system or as a wire-line entrance link between microwave and multiplex facilities.

You can specify a 46C arrangement for either 300 or 600 voice channels. It's easy and economical to expand a 300-channel system by merely inserting intermediate repeaters and changing equalizers.

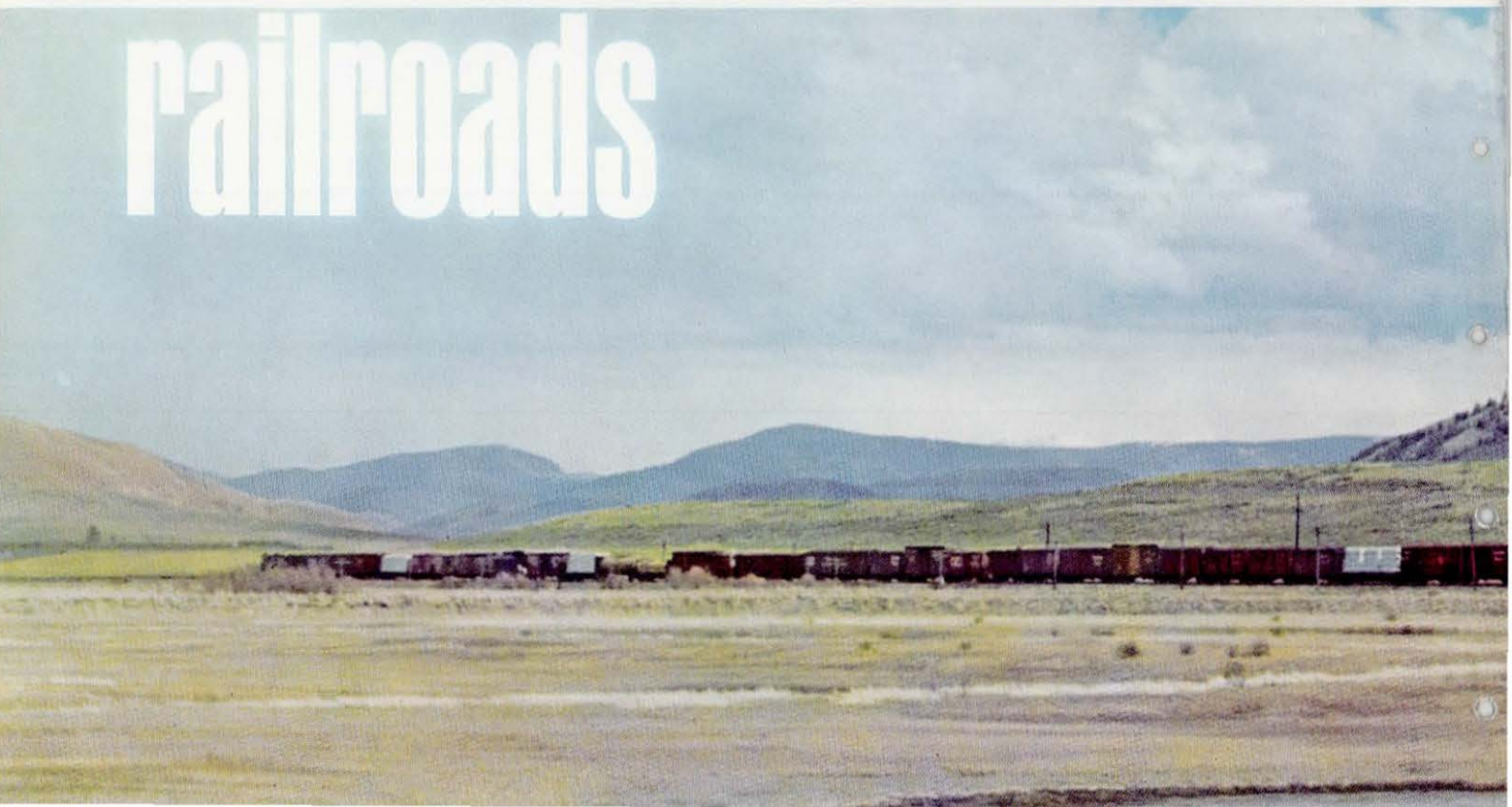
The 46C coordinates with Lenkurt's 46A Multiplex System, or similar equipment that meets CCITT and Bell System standards. Furthermore, there's no need to worry about supervisory, order-wire, and alarm facilities. They're an integral part of the 46C.

For details on how the 46C can fit into your plans for today and tomorrow, call or write Lenkurt Electric Co., Inc., San Carlos, California.



LENKURT ELECTRIC
Subsidiary of
GENERAL TELEPHONE & ELECTRONICS
GENERAL SYSTEM

the dynamic new railroads



The little freight train that could

Can a plucky little train of 5 or 10 cars find happiness and profit in this world of 120-car giants?

"You'd better believe it!" trumpets the Reading.

"Shorter trains make shippers happy," asserts the Denver & Rio Grande Western.

And both mean business—strictly profitable business.

The Reading's shorties are really short—sometimes only 5 cars, never more than 20. Called Bee-Liners, these little trains compete head-on with highway trucks, and turn a neat profit in the bargain.

The Rio Grande runs its "Short, Fast, and Frequent" hotshots just a bit lengthier, but still only a third as long as the typical mile-long freight. They, too, are making money for the railroad.

And what's so big about little trains? The same thing that's big about long trains, unit trains, piggyback trains, containerized trains, new-automobile trains: they all speak eloquently of the "can do" spirit of today's Dynamic New Railroads. No more does a railroad just run trains; now it tailors transportation service to fit the needs of shippers.

Here at Bethlehem Steel we view the rail revolution with high enthusiasm. We depend on a viable and versatile rail system, to haul our supplies in, to move our steel out . . . and to buy the wheels, axles, freight cars, and other steel products that help to keep our railroads—and Bethlehem—rolling.

BETHLEHEM STEEL

MEMBER
RPI
RAILWAY
PROGRESS
INSTITUTE

Some railroads don't need our oil.

But your diesels need Sinclair Gascon Diesel Lubricating Oils
Over 100 railroads use them
And they've gone a long way with them
Over ten billion miles!
PLAY SAFE—USE SINCLAIR

SINCLAIR GASCON GL-XD
A dependable, long time performer.
High lubricating ability.
Low wear rates.
Low maintenance costs.

SINCLAIR GASCON GL-SUPREME
A high dispersant oil.
Cleaner engines.
Excellent alkalinity retention.
High stability.

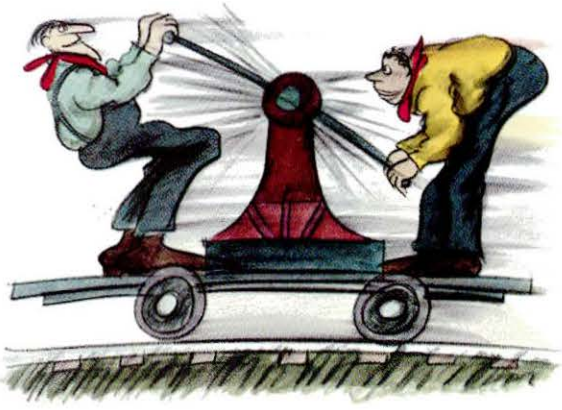
Sinclair **Sinclair**

Railway Sales
New York—Chicago—Houston

I'VE BEEN WORKING ON THE RAILROAD

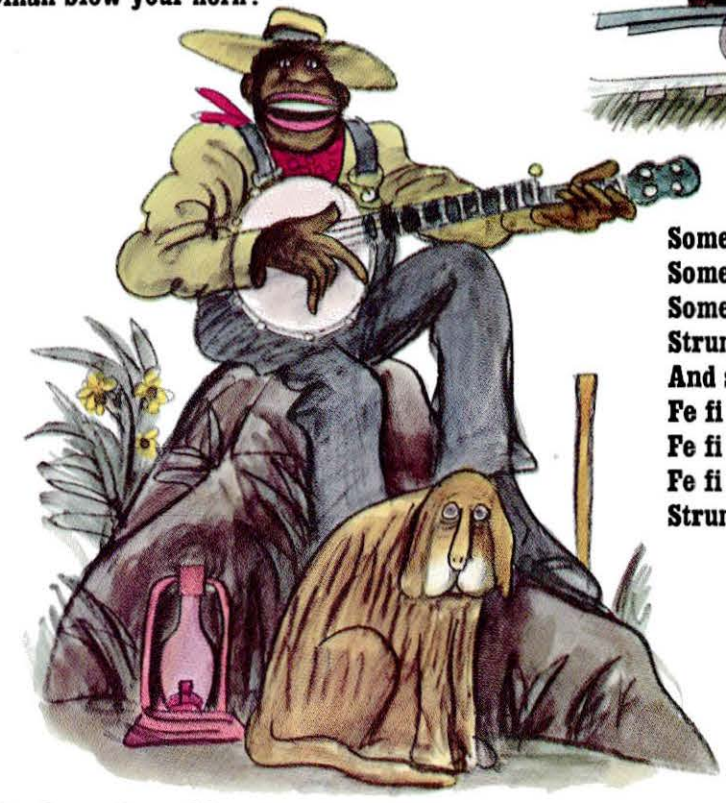
The source of this great old American railroad song is somewhat a mystery. It may be a genuine folk song or it may have had its origin back in the days of the tramp minstrel show. Most versions of the song, and there are many, reflect the arduous but colorful life of the railroad hand. We have chosen the most familiar version for this series... the one so often sung around campfires and wherever friends gather.

I've been workin' on the railroad
All the live long day.
I've been workin' on the railroad
Just to pass the time away.
Don't you hear the whistle blowin'
Rise up so early in the morn,
Don't you hear the Captain shoutin'
Dinah blow your horn?



GM

MARK OF EXCELLENCE



Someone's in the kitchen with Dinah,
Someone's in the kitchen I know-o-o-o.
Someone's in the kitchen with Dinah,
Strummin' on the old banjo.
And singin'
Fe fi fiddly-I-O
Fe fi fiddly-I-O-O-O-O
Fe fi fiddly-I-O
Strummin' on the old banjo.

Dinah won't you blow
Dinah won't you blow
Dinah won't you blow your ho-o-orn?
Dinah won't you blow
Dinah won't you blow
Dinah won't you blow your horn?

The rousing rhythm of "I've Been Working On The Railroad" captures, to a remarkable degree, the bygone era of gandy dancers and sledge-swinging work crews who challenged the frontier head on.

New Departure-Hyatt shares with railroad men this nostalgia for the pioneering past. Even more important, they share the railroads' dedication to pioneering for the future—to the finding of new, better and safer ways to diminish space and time on rails of steel. The advances that have already come from NDH have had a bearing on this progress—and the best is yet to come!

A full-color reprint of this advertisement, without commercial message, is available to you, upon request. If you'd like a reprint of each ad in the series, just ask. We'll send them to you as they are released.

NEW DEPARTURE HYATT BEARINGS

Division of General Motors Corporation, Sandusky, Ohio 44870

©New Departure-Hyatt Bearings Division,
General Motors Corporation 1968.

Safety pays

Now, two of America's safest investments pay higher interest. U. S. Savings Bonds earn 4.25% and Freedom Shares earn a full 5%, when held to maturity.

Both are part of the surest and soundest employee benefit plan available . . . the Payroll Savings Plan.

Here's how it works.

When your employees purchase Series E Savings Bonds through your company-operated Payroll Savings Plan, they have the option to buy higher-paying Freedom Shares, too, on an approximate one-for-one basis. Only one deduction is necessary to apply toward the Bond/Freedom Share "package."

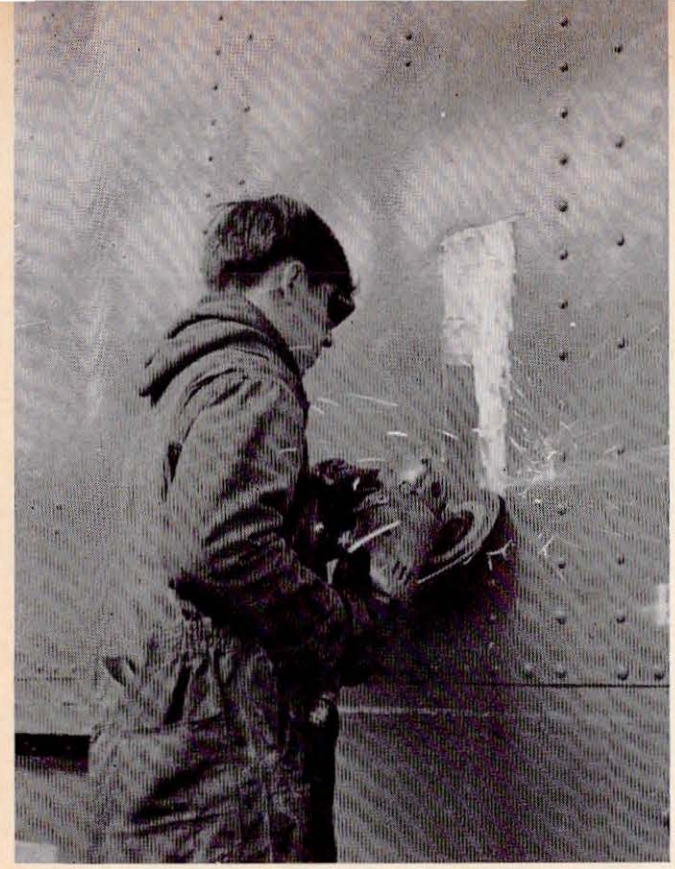
By promoting the Payroll Savings Plan in your plant, you're helping your employees by providing a convenient, automatic way for them to save. And money saved in this way aids in maintaining the stability of our economy, and helps to protect the value of the dollar — so you're helping your country, too, by encouraging broader participation in the Savings Bonds Program.

A complete kit is available with all the information and material you'll need to set up the Plan, if your company doesn't already have one in operation. Write to The Department of the Treasury, U.S. Savings Bonds Division, Washington, D. C. 20226.

U.S. Savings Bonds, new Freedom Shares

In your plant . . . promote the Payroll Savings Plan for U. S. Savings Bonds.

The U.S. Government does not pay for this advertisement. It is presented as a public service in cooperation with The Department of the Treasury and The Advertising Council.



ACI labeling still has a long way to go

Deadline for applying labels is 14 months away, with some 1,770,000 cars not yet ready.

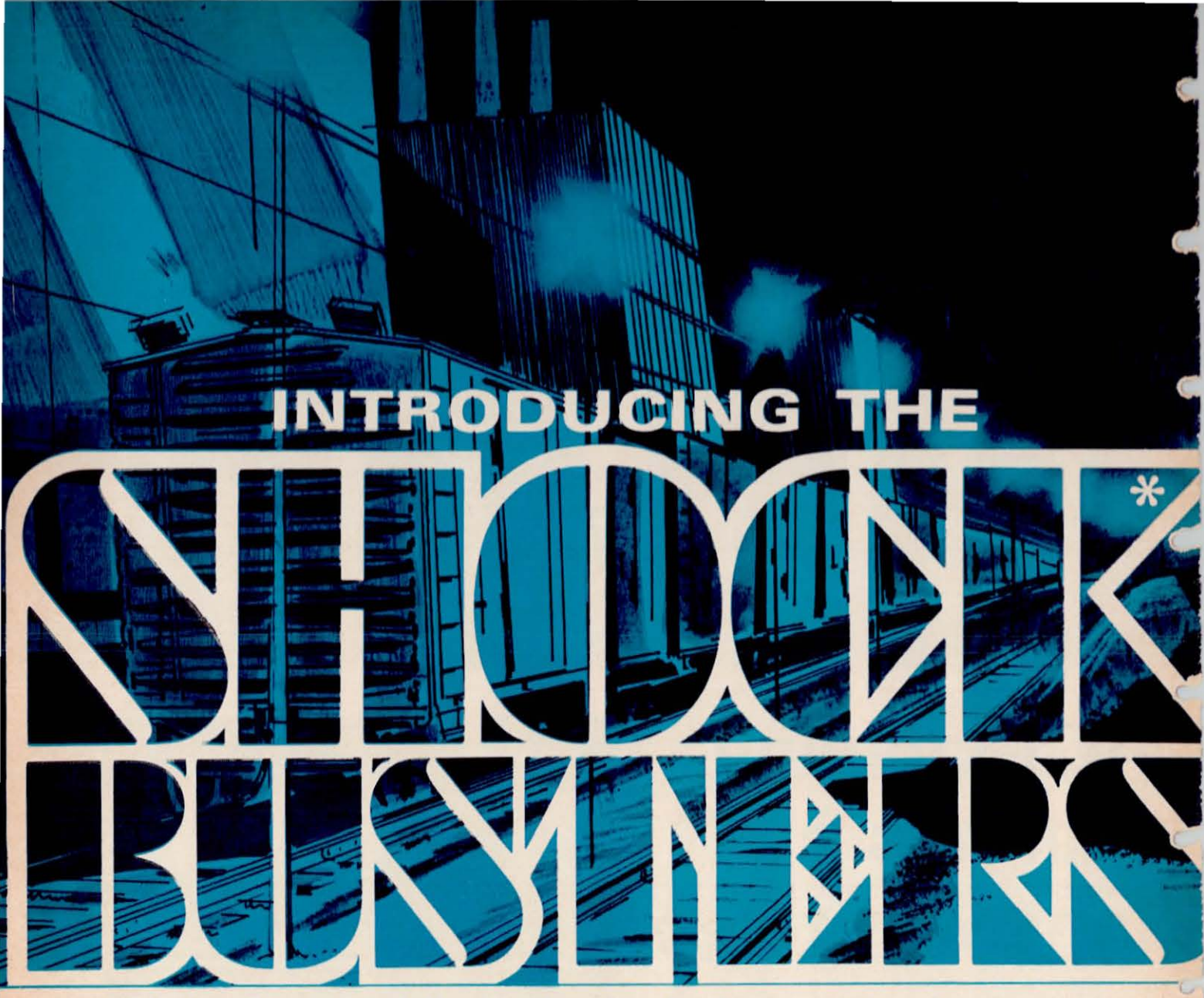
HOW TO JOIN THE ACI LABEL CLUB

First, the label area must be sanded (above, left), wiped clean and primer-activator applied. The 13 ACI label modules, using a template as a guide, are applied (top, right). Template is removed, label is squeegeed, and label area is painted black. This leaves a 2-inch border, and each module's protective mask is peeled off (below). The procedure is duplicated on the other side of the car. The member goal of about 1.8 million cars is expected to be met by the Jan. 1. 1970 deadline.

Thirty thousand down . . . 1,770,000, more or less, to go. That's where the Automatic Car Identification labeling program for freight cars now stands, members of the Association of American Railroads' Data Systems Division were told at their recent fourth annual meeting in Chicago.

"There's a suspicion that more than 30,000 cars are labeled," R. A. Petrash, executive director of the AAR Data Systems Division, said. "But, if more have been labeled, they have not been reported. There seems to be a critical lag in reporting the progress of the programs."

With just 1/60th of the freight car fleet labeled, or reported as labeled, and with the deadline just 14 months away (there will be no time extensions beyond the Jan. 1, 1970 deadline, AAR President T. M. Goodfellow stressed),



INTRODUCING THE SHOCK BUSTERS*

Offering Increased Protection To Lading and Car Equipment

- **Higher Capacities**
- **Lighter Weight**
- **Friction/Clutch Provides More Efficiency and Durability**
- **Fit Standard Pockets**
- **Meet and Exceed Standard Specifications**

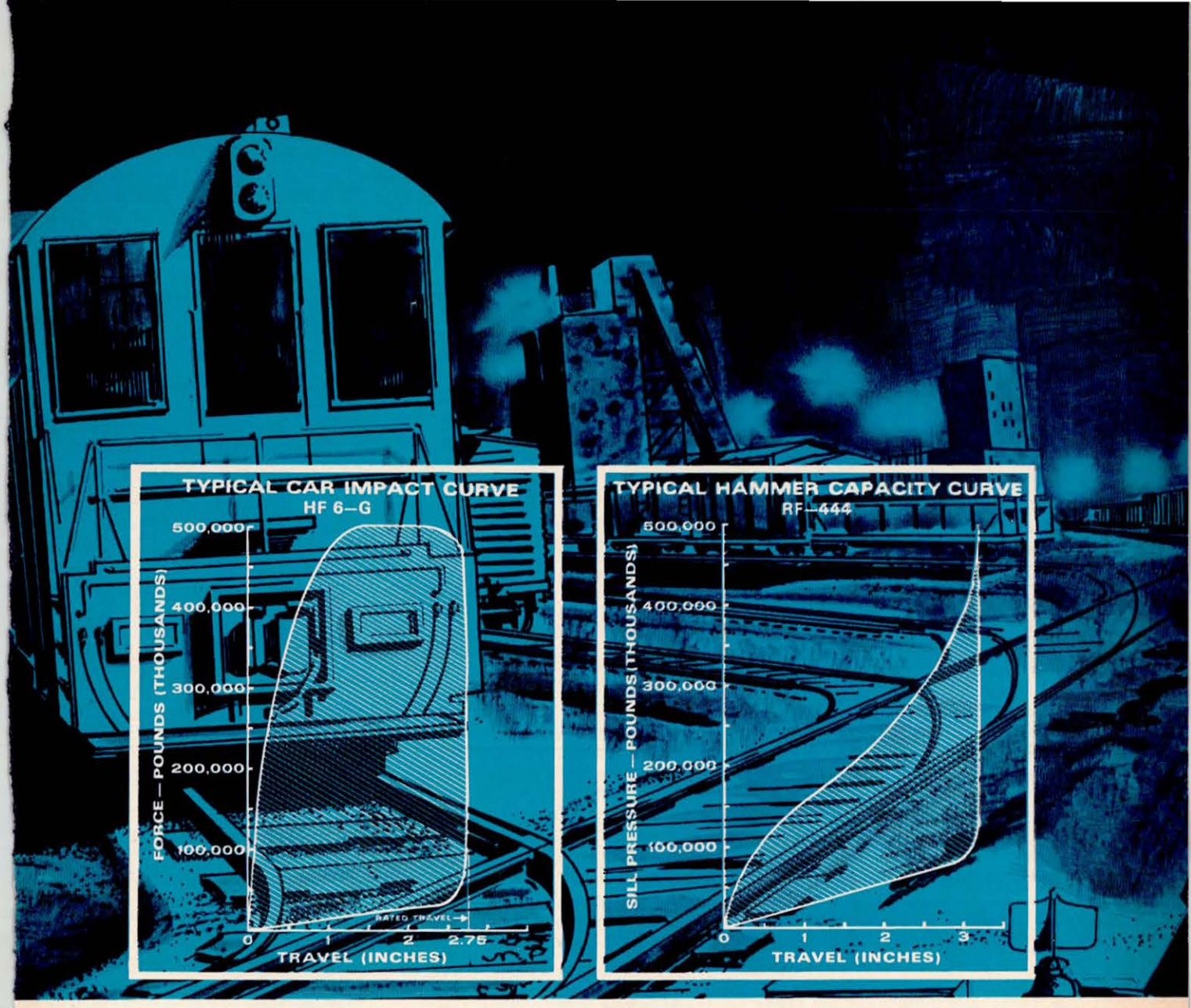
Miner SHOCK BUSTERS are dedicated to the reduction of lading damage and to providing maximum car protection within specified capacities. With capacities that increase during use, Miner's energy absorption line of '68 draft gears are the result of almost 75 years of railroad specialization. The RF-444 and HF 6-G designs are the result of the efforts of the MINER Research and Development Chicago Complex working cooperatively with technically-knowledgeable railroad people. The continuous search for refinement of materials, innovation in design and new shock protection concepts results in increased protection of shippers' lading and railway cars for the benefit of railroads world-wide.

W. H. MINER, INC. CHICAGO

Office of International Operations: Washington, D.C.

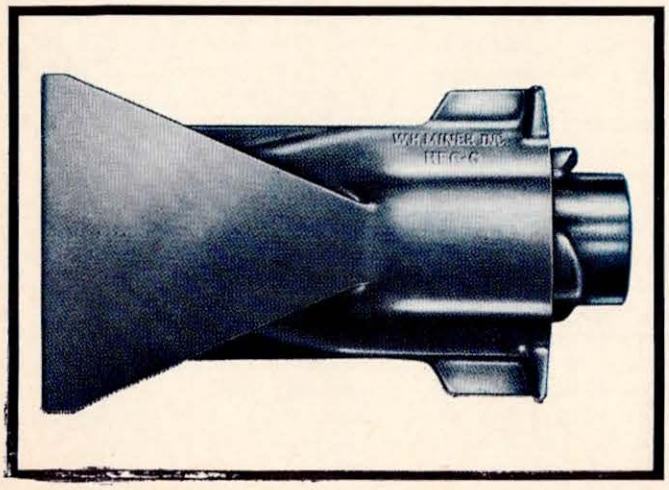
MEMBER RPI RAILWAY PROGRESS INSTITUTE

Copyright 1968 W. H. Miner, Inc., all rights reserved



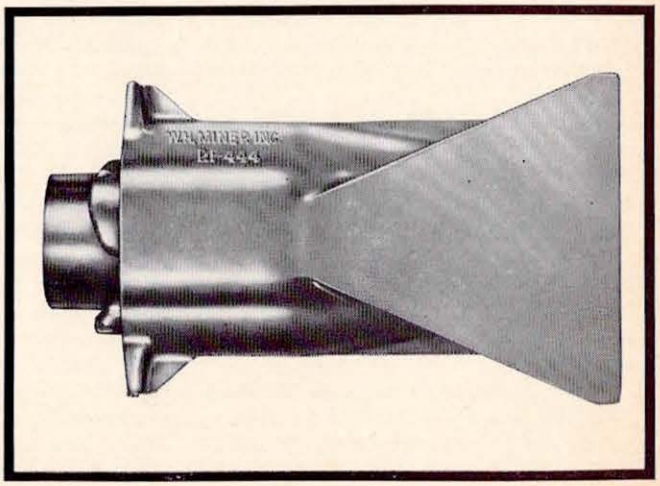
HF 6-G

Hydraulic/Friction design fits standard A.A.R. 24⅝" pocket. W. H. Miner, Inc., Test Track results show a cushioning capacity of 100,000 ft.-lbs. at 6 miles per hour rating velocity based on a reaction force level of 500,000 lbs. Designed and tested in accordance with A.A.R. Specification M-901G-69.



RF-444

Meets A.A.R. Specification M-901E-68 for 24⅝" pocket. A.A.R. Official Capacity of 48,300 ft.-lbs. at a rated travel of 3.18" and a reaction force level of 568,000 lbs. The proven Miner friction/clutch design, imitated, but never duplicated, provides maximum efficiency and durability.



*A trademark of W. H. Miner, Inc.

Circle 8 on coupon page 41

WINTER CONDITIONS MAY DELAY LABELING PROGRAM

the railroads will have to step up the pace of their programs.

● **No shortage of labels.** Earlier this year, railroad mechanical departments, which are responsible for application of the labels, claimed that a shortage of some of the retroreflective modules forming the labels was hindering progress. "However, this is no longer the case." reported W. H. Thompson, director-data control, Illinois Central, and chairman of the DSD ad hoc committee on ACI. "Some 384,000 carsets of labels have been delivered to the railroads now, and we've been assured by The 3M Company that another 700,000 carsets will be in their hands before the end of this year."

Experience gained thus far in the application of labels directly to car sides indicates that there can be no deviation from the accepted standards of application. For instance, the labels cannot remain reliably in place if the temperature at the time of application is below 50 degrees F. Nor can they be applied when the car side surface is wet. This means that, in many locations, application of labels directly to car sides will have to be suspended in late fall, winter and early spring because of prevailing weather conditions.

The alternative to direct application of labels to the cars was pointed out by A. E. Pew, director-data control, Burlington, and also a member of the ACI ad hoc committee. It requires the use of plates "to which the label modules are affixed prior to attachment to a car side."

● **Plates may cost less.** The plates, although recognized by some mechanical department officers as being more expensive to use than the direct-to-surface modules, may be the only route open if the deadline is to be met. Over the long haul, though, the plates may result in lower costs, Pew said. For one thing, the baked on black surfaces of the plates will last as long or longer than the modules themselves, whereas the black coating required in direct application will undoubtedly need re-touching before the label itself must be replaced.

According to AAR directions for application of rigid metal backing or mounting plates, these plates "should be attached to the car, trailer or container with a drive rivet, metal screw or bolt of 3/16-in. diameter." Also, the head of the mounting device "should be black anodized or painted black to maintain the black border of 2 in. minimum width."

Some roads, still engaged in pilot programs to determine the best way to apply the plates, have experimented with methods other than those outlined in the instructions. Welding, both skip and spot, is being used at many locations. To prevent welding heat from damaging the label, one road decided to use a slightly oversize plate. Another road is reported to be testing a nailer which uses a blank cartridge to propel a special nail into the car side.

Three types of metal plates and one fiberglass plate now meet the AAR size specifications—10½ in. wide by 22 in. high. However, only two of these sizes, produced by Northwest Screen Print Co., Chicago, and Kux Manufacturing Co., Detroit, have received AAR approval for application. These two are:

—18-gauge galvanized steel with baked black paint on both sides;

—.062-in. aluminum, black anodized on both sides.

Currently under test, but not yet approved, are:

—.040-in. aluminum, with black baked vinyl enamel coating on the face, protective finish on the reverse side;

—3/32-in. fiberglass, permanent black with guide marks in gray for positioning the modules. This product of Kem'ite Corp., Joliet, Ill., is similar to the fiberglass-reinforced plastic Empro signs used by many roads for monograms on sides of their cars.

● **Quantity rates.** The prices of the various types of label plates vary according to quantity, and whether they have such things as pre-drilled mounting holes, pre-applied modules of varying quantity and attached module templates. Base prices of the plates, in quantities of 15,000 are:

—Approved steel: 72 cents each;

—Approved aluminum: $1.23 each;

—0.40-in. aluminum: 69 cents each

Pre-drilling costs extra

If ordered with the six pre-drilled holes, each plate costs an additional six cents. Manila templates to guide application of the modules cost 12 cents when bought loose, 16 cents each if taped to the plate by the vendor.

In quantities of 10,000, fiberglass plates with the six AAR-approved holes are listed at about $1.19 each.

● **Pace will increase.** The pace of labeling is expected to pick up considerably after Jan. 1, 1969, and the number of cars bearing the red-white-blue-black, 13-module ACI labels will increase noticeably. After that date, an open season will exist for labeling all foreign cars in interchange service.

The majority of roads want to establish labeling programs of their own this year and thereby maintain control of expenditures within existing budgets. Therefore, they notified other roads through the AAR Mechanical Division that they did not want cars labeled in any shops other than their own. Because of the urgency of the program, the AAR declared in August that the exemption requests need not be honored after the end of this year.

As outlined in Interchange Rule 101, the charges for labeling foreign cars are:

—$9.30 when applied to the car without plates or brackets;

—$13.60 per car, with plates and brackets;

—$.36, application of individual replacement module.

While railroad mechanical departments are fretting over the next 14 months' task of affixing primary labels to some 1.8 million freight cars plus thousands of other members of the rolling stock family, railroad data systems planners are already envisioning schemes which will require addition of more label data for relaying vital information to computers via the wayside scanners. The primary labels now being applied are coded to give basic information about the equipment passing the probing eye of the scanner, i.e., type of equipment (car, locomotive, trailer, etc.), equipment owner, equipment number.

● **Secondary labels.** With the primary label's information serving as the keystone, still more valuable information can be sent to the computers from a secondary label applied to the equipment. Some assignments which could be relegated to secondary labels, as pointed out by J. J. Schmidt, director-research services, Chesapeake & Ohio/Baltimore & Ohio, might be: Mechanical monitoring of locomotives and certain other pieces of equipment; operation use: train identity/priority; physical characteristics; class of car; size, country of origin of containers; physical status of monitoring; special use by owning road, etc.

● **Labels with 17 digits.** While the vast majority of the cars in the North American freight car fleet have yet to receive their first label, there are some which have gone beyond that initial step of merely telling the wayside scanners: "I am a freight car, this is my owner, and here is my identifying number." For instance, unit-train coal hoppers owned by Inland Steel and operating on the IC between an IS mine in Sesser, Ill., near Centralia, and Chicago have 17-digit labels—four more than the standard ACI label. The extra modules are coded with the tare weight of the car and are adjacent to and above the primary label.

Both the wayside scanner and the weight-in-motion scales with which it works in tandem are on the outbound

track beyond the mine's coal loading surge bins. As a loaded car passes the scanner-scale site, the label information plus the gross weight is relayed to the loading control room where it triggers production of a printout which shows, among other things, the net tonnage in the car. This printout message gives all the pertinent information on all the cars in the unit train and serves as the basis for later preparation of a combined bill-of-lading/waybill-freight bill.

● **Serves as manifest, too.** In addition, as a result of the extra four-module secondary labels on the cars, the printout is able to serve as the manifest for IS, and a punched tape copy of the message can be transmitted by the railroad to consist check points along its lines. The agent at Carbondale, Ill., rather than preparing waybills, is able to use the original ACI message and the consist record as his record of the unit train operation.

Combination ACI/WIM systems are also being utilized by the Penn Central and the Duluth, Missabe & Iron Range. Furthermore, the Wabush Mines Railroad has made secondary use of the ACI principle to "flag the positive locking of the doors on bottom dump hopper cars," Schmidt told Data Systems Division members.

Two techniques have been investigated by the ad hoc ACI committee in cooperation with Sylvania, developers of the original ACI system, in which special modules or a specified series of modules can be used to alert the scanner that the information forthcoming is of a secondary nature. These two techniques have shortcomings, however. since they will degrade and shrink the basic information everyone is expecting from the standard label. Both the committee and Sylvania believe that the parallel labeling system offers the best avenue for supplying secondary information since it will not interfere with nor force compromise with the main ACI system.

● **Effect on earnings.** Exciting things are expected of the retroreflective modules which form the ACI labels. Top managements within the railroad industry are hopeful that results of the industry-wide systems will eventually be reflected in their net income figures.

Compared with the scanners, electronic buffers, computers and the humans who will make the information-gathering systems work, the labels are quite unsophisticated. Yet, like a television set's on/off button, also a comparatively unsophisticated gadget, the labels are essential as initiators of the desired action.

The task ahead is not a simple one—about six labels (or 78 modules) must be applied each minute over the next 14 months to meet the Jan. 1, 1970, deadline. ■

Frank Malone

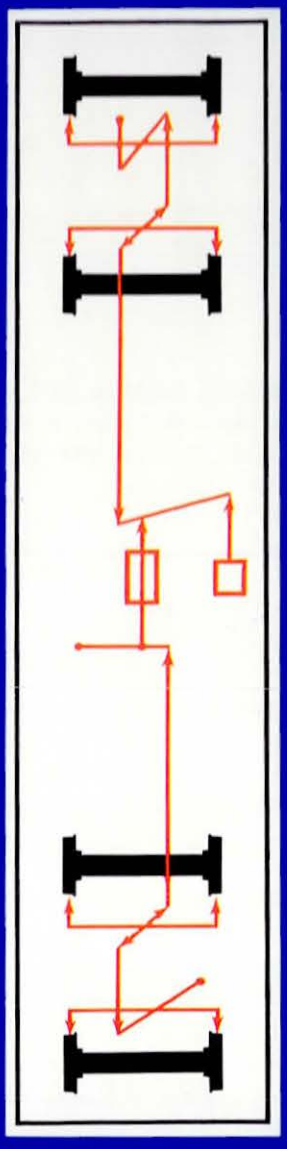
WATCHING WASHINGTON

TRANSPORT WORK GOES ON—The lull is settling on Capitol Hill, but work goes on for a mighty piece of transport legislation. For introduction in the 91st Congress, members of the Transportation Department's Office of Facilitation will try to melt modal hangups about a bill known as the Trade Simplification Act. It would provide for joint modal rates in international transport. Its 90th Congress progress consisted of only two days of Senate Commerce Committee hearings, so DOT has a big job ahead.

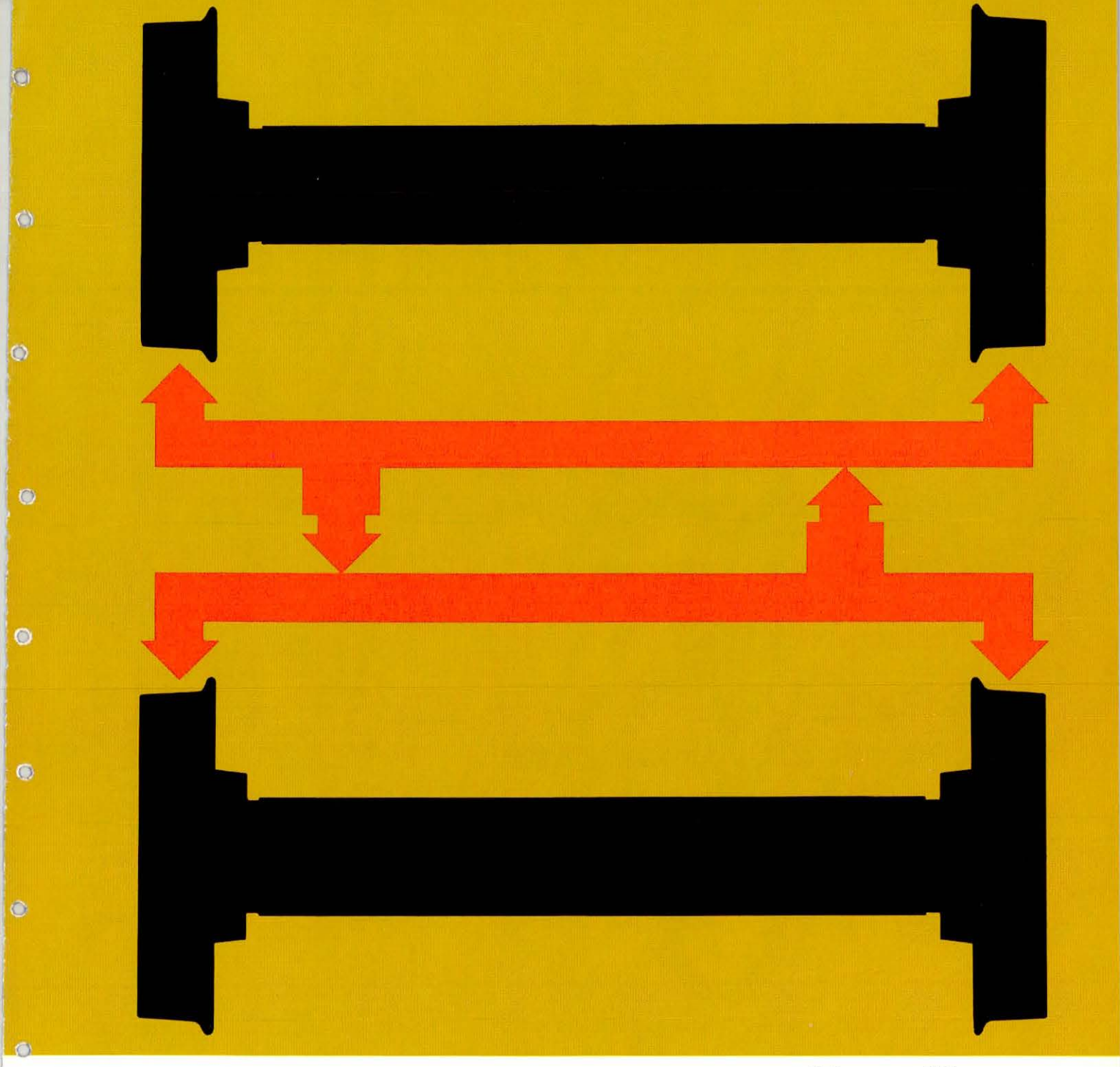
TO DRAIN THE BOG—The bill is designed to drain the paper bog in which international shipments get stuck expensively. It would let common carriers set joint rates (to be filed with respective regulators) for moves between U.S. and other-nation points. Carriers could interchange equipment and issue a single bill of lading—without anti-trust harassment.

A DREAM, YES—Imagine John Deere parts moving from Moline, on the Rock Island to Chicago, on the Penn Central to New York, on U.S. lines to Hamburg, and on the Bundesbahn to Nuremberg—under one through-bill that could save a week at least. Robert J. Blackwell, Office of Facilitation director, isn't afraid to dream. He thinks the bill's chances of passage are good, after more hearings and some revision based on more talks with modes. Railroads want provision for Section 22 rates on international movement of U.S. property, stronger wording for anti-trust relief, and clear understanding of how particular carriers would be charged for damages. Truckers want strong anti-trust words, too. They and air lines object to extending joint-rate arrangements to freight forwarders.

RAILS SHOULD DREAM—The bill could open huge markets for U.S. railroads, cause an explosion in car utilization and shrink accounting costs. Consider Blackwell's musings on "unorthodox" landbridge moves, West Coast to Europe and East Coast to Asia. They're all-water, all-foreign, and three to four weeks long. Movements from the West Coast alone bring maritime companies $2 billion a year. Railroads could offer attractive bridge service by running unit trains on the old four-day cross-country passenger schedule, Blackwell suggests. If they grabbed just one-third of the business, they'd be way ahead. An extra $700 million for railroads that can fit the intermodal plan is some kind of dream. What DOT will have to do to make that dream real is a great big job.



Conventional rigging's indirect action keeps braking efficiency at 40% to 65%



WABCO applies braking forces directly for efficiency of 80% to 85%

The WABCOPAC® Brake Assembly is a truck-mounted, direct acting, package braking system that gives identical, balanced braking on all four wheels of each truck. Because WABCOPAC Brake Assembly eliminates all of the inefficient power transmission linkage, its efficiency is 80 to 85% as compared to conventional brake rigging efficiency of 40 to 65%.

The WABCOPAC Brake Assembly is tailor-made to release brakes faster (a real benefit at lower train speeds) and provide the closer speed control necessary for the tightly scheduled freight trains of tomorrow. The closer speed control it gives high-speed trains will allow them to be deeper within a signal block before braking, so average speeds will be higher.

The trend is to larger cars, tighter schedules, and higher average speeds—almost as fast as passenger trains. This advance in railroading will lower transportation costs but also will put critical demands on speed control equipment to maintain higher average speeds within signal blocks.

Meeting these demands is WABCO's business. Our speed control developments include: the WABCOPAC Brake Assembly for more efficient control and response, the ABD Valve for accelerated releases, and the Remote Multiple Unit control system for closer speed control and braking efficiency on high-speed freight trains. For more information, contact Westinghouse Air Brake Division of Westinghouse Air Brake Company, Wilmerding, Pennsylvania 15148.

WABCO

WABCO HAS IT NOW—CLOSER SPEED CONTROL FOR TOMORROW'S FASTER FREIGHTS

THE STATISTICS NOBODY WANTS TO TALK ABOUT

(*Continued from page 15*)

It is clear on the basis of these figures that, as stated by Mr. Lang, "the economy is devoting less and less of its freight transportation dollars to the purchase of railroad transportation."

Table 2 shows that the railroads have not been growing along with the rest of the country when measured in terms of gross national product. During the period 1958-1966, the rail share of GNP declined from 1.96% to 1.37%, a drop of about 30%. During that same period, GNP increased 65%, which is precisely the amount of the freight revenue increase for all modes, *excluding* railroads, as shown above. During the same period the rail freight revenue increase was only 16%.

Even in the area of intercity freight ton-miles, where some claim the railroads are holding their own, the rail figures are not encouraging. Table 3 figures show that the rail share of total rail, ICC regulated truck, and non-ICC truck intercity freight ton-miles has declined about 3.5% during the period 1958-1966. ICC regulated truck has increased its share slightly over 27% and non-ICC regulated trucks' share has dropped about 2.5%.

The figures in Table 3 also show that in the period 1958-1966, rail ton-miles increased 34% while ICC regulated truck ton-miles increased 76%. Non-ICC truck increased 35%.

While the railroads continue to handle the largest percentage of intercity freight ton-miles, ICC-regulated truck traffic is increasing at more than double the rate of the rails. Not only are ICC-regulated trucks increasing their ton-miles at a faster rate than the railroads, but apparently they are handling higher rated traffic.

Table 4 shows that rail freight revenue per ton-mile has dropped 13% in the period 1958-1967. During the same period Class I truck revenue has *increased* 15%. Some of the drop in rail revenue is undoubtedly attributable to reduced rail rates which have been published to retain or regain traffic. For example, grain rates have been reduced, and unit train rates are lower than single car rates on the same commodities. There are other examples.

On the other hand, the reduction in revenue per ton-mile may reflect the handling of lower rated commodities by the railroads. Conversely, the increased truck revenue may reflect the handling of higher rated commodities by those carriers. As FRA Lang said, "The truth is that 'there are ton-miles and there are ton-miles,' and one bunch of ton-miles is very different from the next."

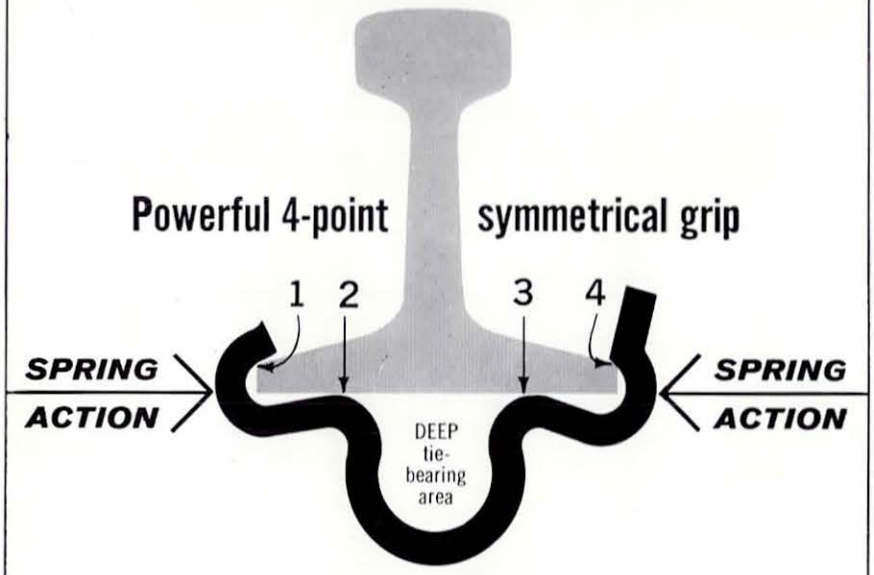
On every count—revenue, freight ton-miles, and relationship to the national economy—railroads are falling behind.

The purpose of this article is not to attempt to outline a solution to this problem. Its purpose is to point out the seriousness of the matter and then raise the question as to why something more is not being done about it by the railroad industry.

A partial answer may be found again in Mr. Lang's speech:

"To say that the railroads constitute *an* industry, however, may go too far. The railroads appear, rather, to be a collection of separate companies which, while engaged in a common enterprise, display some apparent disregard for their joint responsibility to the national economy, to say nothing of their own survival." ■

Woodings Rail Anchors have MORE RESERVE POWER than you ever need!



The powerful spring compression grip of the Woodings Rail Anchor is backed up by wide and deep tie-bearing area. Together they give the Woodings Anchor its extra reserve power, enable it to hold fast under the most severe conditions. High reapplication value, excellent for machine application, best for welded rail.

Since 1873

WOODINGS-VERONA TOOL WORKS
Main Offices and Plant: Verona, Pa.

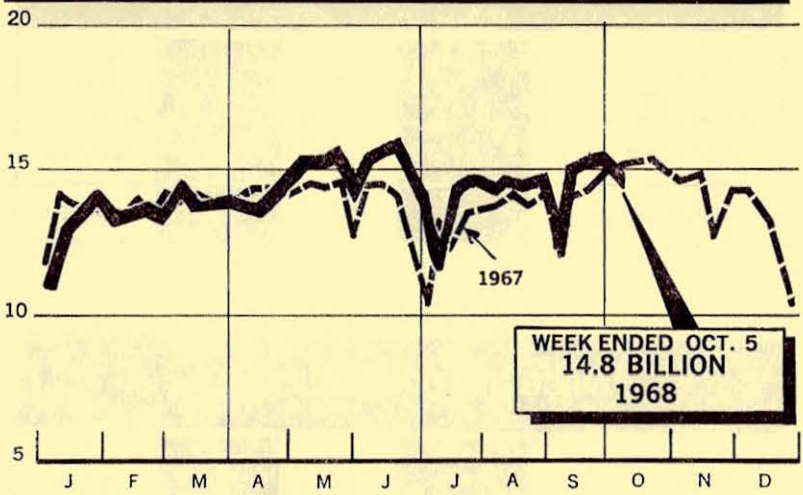
MEMBER RPI RAILWAY PROGRESS INSTITUTE

WOODINGS
ADVANCED TYPE
RAIL ANCHOR

Circle 10 on coupon page 41

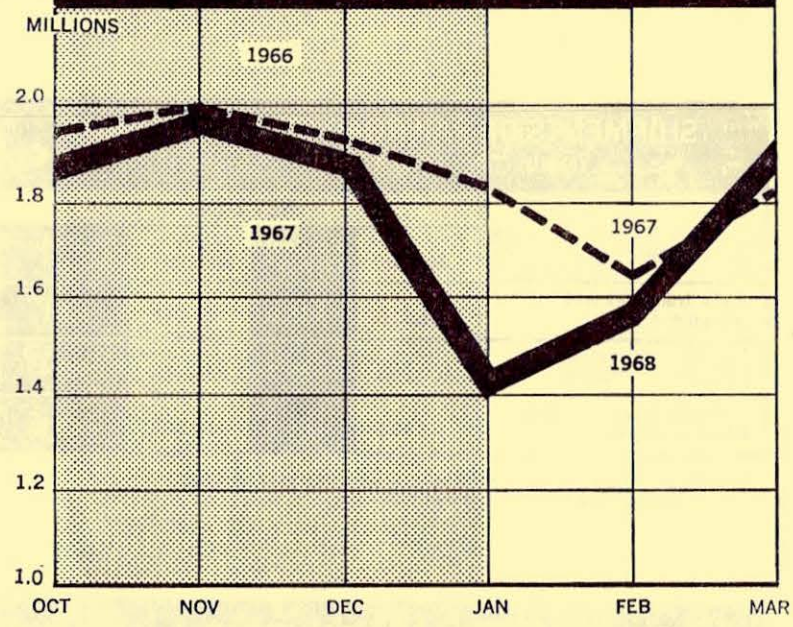
RAIL FREIGHT TRAFFIC TRENDS

BILLION TON-MILES (Estimated)



Source: Association of American Railroads

MILES PER HOTBOX SETOFF



Source: Operations and Maintenance Dept., Mechanical Division, AAR.

Current Statistics

Net income, Class I roads	
Six months, 1968	$284,000,000
Six months, 1967	$265,000,000
New freight cars on order	
Sept. 1, 1968	16,256
Sept. 1, 1967	26,122
New freight cars delivered	
8 months, 1968	38,614
8 months, 1967	60,189
Serviceable cars	
Sept. 1, 1968	1,388,680
Sept. 1, 1967	1,413,272

NEW ORDERS FOR MACHINE TOOLS*

	August 1968 ($000)	August 1967 ($000)	8 mos. 1968 ($000)	8 mos. 1967 ($000)
Metal cutting tools	78,750	115,600	721,000	813,100
Metal forming tools	27,200	19,300	196,350	184,100

MACHINE TOOL SHIPMENTS*

	August 1968 ($000)	August 1967 ($000)	8 mos. 1968 ($000)	8 mos. 1967 ($000)
Metal cutting tools	88,350	93,050	900,700	872,950
Metal forming tools	32,650	28,800	244,100	305,700

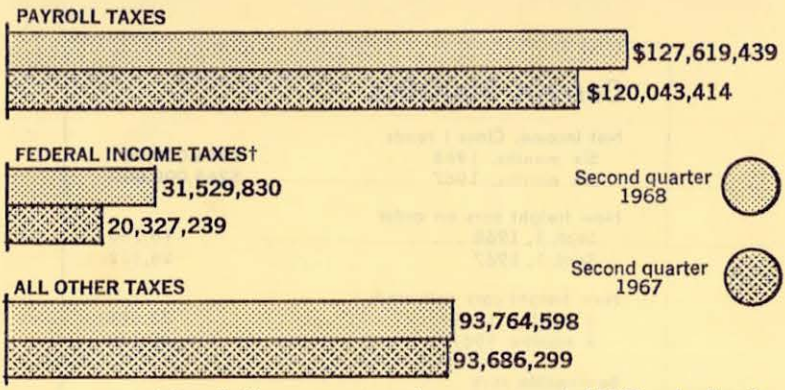
*Including foreign and domestic.
Source: National Machine Tool Builders' Association.

SHIPMENTS OF RAILROAD STEEL PRODUCTS
(AUGUST AND FIRST EIGHT MONTHS 1968)

	NET TONS			
	August	Per Cent Change*	Eight Months	Per Cent Change*
Rails, trackwork and equipment	31,216	−38.0	714,316	+3.1
Freight and passenger cars and locomotives	102,993	−35.2	1,436,658	−9.4
Street railways and rapid transit systems	9,976	+65.2	53,428	+68.9

*Per cent change compares 1968 periods with like 1967 periods.
Source: American Iron and Steel Institute.

RAILROAD TAXES*



*Compiled from revenues and expenses report of 77 Class I railroads.
†Includes income tax, surtax and excess profits tax.
Source: Bureau of Accounts, ICC.

MARKET OUTLOOK

CARLOADINGS

Loadings of revenue freight in the week ended Oct. 12 totaled 531.104 cars, the Association of American Railroads announced on Oct. 17. This was a decrease of 37,293 cars, or 6.6%, compared with the previous week; a decrease of 52,889 cars, or 9.1%, compared with the corresponding week last year; and a decrease of 105,438 cars, or 16.6%, compared with the equivalent 1966 week. Ton-miles generated by carloadings in the week ended Oct. 12 are estimated at 14.0 billion, a decrease of 6.4% below the corresponding week of 1967, and 11.2% below the 1966 week.

REVENUE FREIGHT CARLOADINGS
For the week ended Saturday, Oct. 12

District	1968	1967	1966
Eastern including Allegheny and Pocahontas	171,113	226,276	256,224
Southern	122,391	119,213	119,416
Total Eastern and Southern Districts	293,504	345,489	375,640
Northwestern	80,284	81,633	94,230
Central Western	116,988	115,988	123,954
Southwestern	40,328	40,883	42,718
Total Western Districts	237,600	238,504	260,902
Total All Roads	531,104	583,993	636,542
Commodities:			
Grain and Grain Products	48,061	48,528	56,688
Livestock	3,028	3,321	4,858
Coal	48,509	110,545	121,592
Coke	6,047	6,975	8,180
Forest Products	43,738	39,532	38,495
Ore	40,386	40,007	54,474
Merchandise l.c.l.	4,415	4,535	6,709
Miscellaneous	336,920	330,550	345,546
Oct. 12	531,104	583,993	636,542
Oct. 5	568,397	582,619	621,031
Sept. 28	593,379	585,673	613,394
Sept. 21	585,625	569,303	611,602
Sept. 14	582,763	566,821	616,312
Cumulative total, 41 weeks	22,242,373	22,145,911	23,398,254
Estimated revenue ton-miles (billions) 41 weeks	586.6	566.0	583.5

PIGGYBACK CARLOADINGS

U. S. piggyback loadings for the week ended Oct. 5 totaled 29,107 cars, carrying 43,550 trailers, compared with 25,937 cars, carrying 43,011 trailers, in the corresponding 1967 week. Loadings for 1968 up to Oct. 5 totaled 1,024,723 cars, carrying 1,667,693 trailers, compared with 917,445 cars, carrying 1,508,616 trailers, in the corresponding period of 1967.

IN CANADA

Carloadings for the nine-day period ended Sept. 30 totaled 94,138 cars, compared with 77,141 for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada		
Sept. 30, 1968	94,138	30,380
Sept. 30, 1967	98,851	30,818
Cumulative Totals		
Sept. 30, 1968	2,788,552	920,079
Sept. 30, 1967	2,869,269	932,207

FREIGHT TRAIN CARS

• *September bad order ratio 0.1% lower than last year.*—Class I roads on Sept. 1 owned 1,467,366 freight cars, 28,312 less than on Sept. 1, 1967, according to AAR report summarized below. Bad order ratio was 0.1% lower than on Sept. 1, 1967.

	Sept. 1, 1968	Sept. 1, 1967	Change
Car ownership	1,467,366	1,495,678	- 28,312
Waiting repair	78,686	82,406	- 3,720
Repair ratio	5.4%	5.5%	- 0.1%

NEW FACILITIES

• *Alabama Terminal Railway.*—Terminal Railway, the port railroad for the Alabama State Docks at Mobile, has purchased a Univac 9300 computer, a Univac 9400 computer and six Uniscope 300 visual communications terminals to provide management with a real-time, up-to-the-minute car inventory.

• *Penn Central.* — Placed an order with the Signal & Communications Division of WABCO for a 9-ft TCC solid state control machine to be located at Logansport, Ind. The machine will control operations over 100 miles of track between Anoka, Ind., and Bradford, Ohio.

FOREIGN

• *Brazil.*—Companhia Vale de Rio Doce (CVRD), Brazil's largest producer and exporter of iron ore, has been granted a $17.7 million Alliance for Progress credit which will be used to purchase 12 diesel-electric locomotives from General Motors; 42,000 tons of heat-treated rails; a traffic control system; and miscellaneous equipment. Inquiries relating to the non-motive-power purchases should be directed to Rony Lyrio, Managing Director, Itabira International Co., Ltd., 640 Fifth Ave., New York, N.Y. 10019.

• *Mali Railways.*—Asked for bids on shop tools and equipment (Lot No. 10). Inquiries to Director-General, Mali Railways, P.O. Box 260, Bamako, Mali, for Mali Fr. 50,000. Bids should be sent registered and in French to Office Central des Chemins de Fer d'Outre-Mer, 38, Rue La Bruyere, Paris, 9, France. Bid deadline—Dec. 3.

• *Spain.*—CCI Marquardt Corp., Tulsa, Okla., is producing the first modulated electronic track circuit systems for grade crossing protection along 278 km of the Spanish National Railway (RENFE) on its Madrid-Paris line. Delivery is scheduled for November.

YOU OUGHT TO KNOW

Electro-Motive's Dilworth is dead; diesel pioneer

Richard M. Dilworth, 83, retired chief engineer of Electro-Motive, died October 7 in suburban Chicago. Dilworth, often credited with engineering the successful diesel-electric locomotive, retired in 1951 after 25 years with Electro-Motive. Prior to joining EM in 1926 while the gasoline-electric rail car was being perfected, he had spent over a decade with General Electric working on similar equipment. Dilworth developed the variable-voltage generator for gasoline-electrics which later became an important component in the successful diesel locomotive. After 1930 when Electro-Motive became a part of General Motors, Dilworth engineered the installation of GM's infant two-cycle diesel engine into the first of the Budd-built Burlington Zephyrs which entered service in 1934. He subsequently led development of the diesel-electric passenger locomotive, the first successful main-line diesel freight locomotive in 1939, and the first GM GP road switchers in 1949.

New Jersey AAA gives backing to bond issue

A $640 - million transportation bond issue that will appear on the New Jersey ballot Nov. 5 has won the "reluctant" endorsement of the AAA Auto Clubs of New Jersey. The bond issue would provide $440 million for highway and $200 million for rapid transit, a division which the AAA feels is heavily weighted in favor of transit since "there are more than 3,000,000 drivers in the state and only about 70,000 rail commuters." But the AAA finally endorsed the proposal because "we recognize the practicalities of the situation. If the transportation bond issue is not approved by the voters in November, there will be no new money whatever to begin the gigantic task of bringing the state's roadways up to the standards demanded by this day and age."

NP starts work on 54.7-mile Washington line

Work began last week on a 54.7-mile branch line which Northern Pacific will build to serve an expanding agricultural area between Mesa and Mattawa, Wash. The initial job involves a bridge, where the branch leaves NP's transcontinental main line at Mesa. Contracts for four other bridge-construction projects and for line grading will be awarded in the near future. For NP, this is a long-range investment in traffic growth: extensive irrigation projects which will turn the area into a more productive agricultural district will be completed in the region between now and 1975.

Coming in '69: The super-power diesel-electric

In 1963, they seemed almost unbelievably powerful. EMD's DD35 and GE's U50 packed 5,000 hp, Alco's Century 855 boasted 5,500 hp. They were the stars of the '63 American Railway Progress Exposition. Many roads looked. One, and only one, bought. And there seemed to be a feeling in the industry that it would be a long time before anybody loaded so much horsepower into a single unit again. A long time? Not really. A new breed of superpower, it's reported, will take to the rails next spring—and the power rating, it's also reported, may make the giant diesels of 1963 seem small by comparison. The figure cited: 6,600 hp. Interest in power of this type isn't concentrated in one builder's shop. But it's currently understood that the initial order, for about two dozen units, involves just one manufacturer.

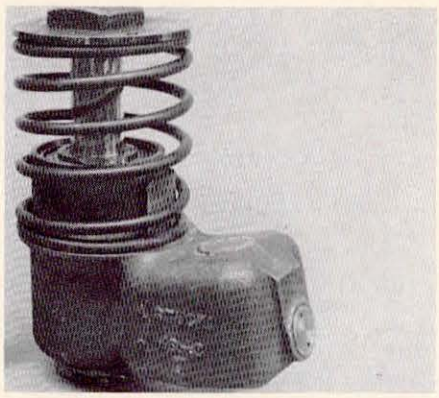
Rising need for coal forecast by bank study

Coal consumption in the U.S. will rise to around 800 million tons annually by the year 1980—about one-third more than at the present time. That forecast is contained in a new study by the Chase Manhattan Bank called "Outlook for Energy in the United States." To meet 1980 requirements, the study found, the nation will also require two-thirds more oil, 100% more natural gas, and nearly twice as much water power. Meanwhile, utilization of nuclear energy will increase from virtually nil "to an amount in 1980 equal to as much as 20% of all energy consumed by the nation only 15 years earlier."

NEW PRODUCTS REPORT

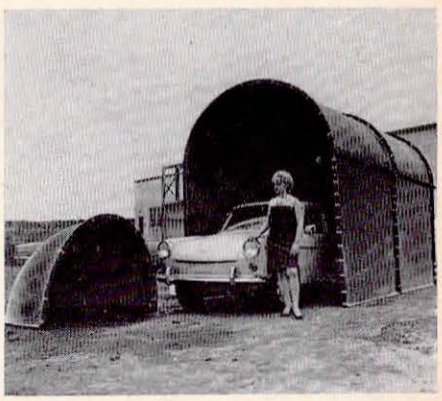
Tool storage trailer (RA-1)

An all-steel service body, adaptable to mounting on a commercial trailer frame, produces a mobile tool storage shed that saves time and money. The storage body/trailer can be moved easily from site to site and left for any period of time without tying up a valuable truck. It is easily towed by any pick-up truck and can be fitted with any style of towing fixture. Special brake locks and jimmy-proof double shell doors assure storage security. *Morrison Steel Products.*



Hydraulic snubber (RA-2)

A hydraulic snubber, the HS-3, is designed to control lateral car rocking; it is installed in a freight car truck above the spring group and beneath the top chord of the side frame. The Stucki snubber is single-acting, functioning only in compression so as to permit the standard springs to act freely under the car's weight. Center plate and side bearings are of standard design. Side frames and bolster are of modified design with special pockets to receive the snubber. *A. Stucki.*



Modular shelters (RA-3)

A modular shelter of reinforced fiber glass, first designed to protect diesel engines during shipment, is now available in a range of sizes and in four basic shapes. Used as a shipping shelter, it serves to eliminate weather damage. It cannot easily be broken into and can be disassembled and nested for reuse. The structure is sealed against water and dust by foam-rubber gaskets bonded to the 2-in. flanges on each panel. Three men can assemble or take down the shelter easily. *NVF Co.*

Alloy couplers (RA-4)

Quenched and tempered couplers and knuckles are now cast in a nickel-chromium-molybdenum steel which produces good depth hardenability, gives fatigue resistance and immunity to temper brittleness. Alloys used result in "excellent" microstructure when the castings are heat treated to meet AAR Specification M-201 requirements for Grade E 120/100 material. *McConway & Torley.*

Two-way translator (RA-5)

A new solid state two-way code translator is designed for both on line or off line operation with or without any teletypewriter station. The new device is used with an IBM 024/026/029 card punch. This unit can be used on line with a computer, allowing the integration of a distant office into any EDP System. The new unit is compatible with EIA standards and accommodates Bell System data sets. *Oneida Electronics, Inc.*

Wood chip car (RA-6)

A "Multi-Discharge" wood chip car designed by Thrall Car permits fast unloading through hinged doors at both ends of the car—or by rotary dump, vacuuming or front-end unloader in a scooping operation. *Thrall Car.*

Release valve (RA-7)

The simpler design of the Sloan brake cylinder release valve involves but one functional part, which is protected from wear by two "O" rings and one rubber seat. Completely redesigned for easier servicing and longer life, Model 2000-A has AAR approval. *Sloan Valve.*

RAILWAY AGE
THE TRANSPORTATION WEEKLY

30 Church Street, N.Y., N.Y. 10007 READERS' SERVICE (Att. J. Lindstrom)

PLEASE SEND ADDITIONAL INFORMATION ABOUT PRODUCTS IN ADVERTISEMENTS NUMBERED: 1 2 3 4 5 6 7 8 9 10 11 12

PLEASE SEND INFORMATION ABOUT PRODUCTS DESCRIBED ON PAGE 41 MARKED: RA-1 RA-2 RA-3 RA-4 RA-5 RA-6 RA-7

NAME ..... TITLE .....

COMPANY .....

ADDRESS .....

CITY ..... STATE ..... ZIP .....

• **Inquiries can be processed only if title and company are shown.** 10/21/68

STUDY CAR MAINTENANCE & INSPECTION in spare time at home

Ever notice the respect given someone who knows more about the work than the next guy? It's usually "Ask Joe" or, "See what Joe thinks about this." While that knowledge won't always add to the pay check, it does pay off in great job satisfaction and personal pride. And who can put a dollar value on that?

You can be such a man by taking this two-year course for car department employees whose work requires an intimate knowledge of car maintenance and repair. Two lessons a month, in simple, non-technical language, guide you swiftly to a better working knowledge of the subject. Your lessons will be graded by experienced instructors who give individual, personalized advice as needed. The cost is low and payable in monthly installments. For full information, return coupon.

RAILWAY EDUCATIONAL BUREAU
1809 Capitol Ave.
Omaha, Neb. 68102

Send full information on locomotive electrical equipment maintenance home study course.

RA-10/21/68

Name_____

Address_____

City, State, ZIP_____

Railroad_____

Job title_____

PEOPLE

BROOKLYN EASTERN DISTRICT TERMINAL.—N. G. Cutter, vice president—traffic and operations, Brooklyn, N.Y., elected president and general manager, succeeding **M. M. McClelland,** who retired Sept. 30, after over 50 years of railroad service. **F. F. Dayton** promoted to general superintendent and **W. J. O'Keefe** to superintendent and general agent.

BURLINGTON.—Pearl L. Smithburg, assistant vice president-staff, Chicago, retired.

Gerald W. Brown, senior assistant manager of pricing, Fort Worth, Tex., appointed manager of pricing there, succeeding **Fred A. Lewis,** general freight agent, who retired Sept. 30 after more than 47 years' service. Mr. Brown's successor is **Walter H. Henderson, Jr.,** junior assistant manager of pricing, who in turn is replaced by **William M. Gray,** sales representative, Amarillo, Tex. **J. C. Stewart,** sales representative, Dallas, replaces Mr. Gray, and in turn is replaced by **Jerry R. Woolf.**

Edward W. Riebow, real estate manager, named to the newly created position of manager-real estate sales.

CHICAGO & NORTH WESTERN. — Larry S. Provo, president, also elected chief executive officer, succeeding **Ben W. Heineman.** Mr. Heineman, president and chief executive officer, **Northwest Industries, Inc.,** will continue as chairman of the railway and chairman of the executive committee.

Donald L. Joerger, assistant to the comptroller, named director of taxation. **Jerome W. Conlon,** auditor of taxes, advanced to assistant director of taxation.

W. D. Selman, manager of freight claims disposition in the accident and loss prevention department, appointed director of freight claim programs in the department. Also in the accident and loss prevention department, **Fred A. Roesner** named manager of freight claims, and **James P. Flynn,** manager of freight damage prevention. Mr. Roesner was previously supervisor of freight claim field operations, and Mr. Flynn was assistant manager of freight damage prevention.

Larry S. Provo
C&NW

D. L. Joerger
C&NW

GREAT NORTHERN.—C. J. Hockaday appointed assistant to vice president-pricing; **R. J. Strecker,** director of pricing-system; **E. E. Nelson,** manager of pricing-grain and grain products; **K. S. Bagley,** manager of pricing-Lines East; **V. A. Opsahl,** manager of marketing planning and control; **R. F. Adams,** assistant to the vice president-marketing, all with headquarters in St. Paul. **M. H. Karl** named manager of pricing-Lines West, and **J. F. Dexter,** assistant manager of pricing-Lines West, both at Seattle.

Deane Carlson, trainmaster, Montana division, Shelby, Mont., named staff assistant to the general manager, Seattle. **J. M. McFarland** replaces Mr. Carlson. **T. N. Hemmesch,** trainmaster, Spokane division, transferred to the Cascade division, Seattle. **R. C. Liggett,** traveling engineer, Mesabi division, Superior, Wis., promoted to succeed Mr. Hemmesch.

OBITUARY

Edgar C. Corry, Jr., 56, executive vice president, **North American Car Corp.,** died Oct. 9.

Richard M. Dilworth, 83, retired chief engineer, **Electro-Motive Division** of **General Motors,** died Oct. 7 at his home in Hinsdale, Ill.

Charles O. Jenks, 94, retired vice president, **Great Northern,** died Oct. 6 in the Wilder Residence Infirmary, St. Paul.

G. W. Kelly, 65, senior vice president-operations, **Rock Island,** died Oct. 7 in Chicago.

RAILWAY CLASSICS CHRISTMAS CARDS

ASK FOR **FREE** ***Colorful Catalog***

ALSO BEAUTIFUL 10 x 15 PRINTS FOR FRAMING

Nostalgic Scenes of Railroading Lithographed in Rich Full Color.
Ideal for personal or business mailing.
Company imprints - one week service.

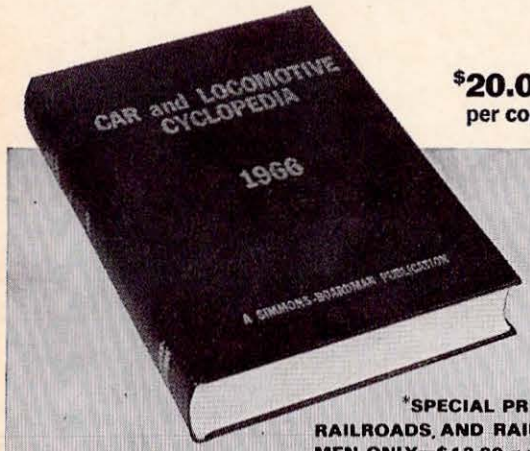
RAILWAY CLASSICS
102 Cherry Street
Janesville, Wisconsin 53545

Circle 11 on coupon page 41

For the first time... it's a reference book for

BOTH CARS AND LOCOMOTIVES

1,200 pages of detailed information, drawings and dimensions, includes all pages that would have appeared in the 22nd Edition, Car Builders' Cyclopedia PLUS 250 pages covering specifications and details of locomotives.



$20.00 per copy*

*SPECIAL PRICE TO RAILROADS AND RAILROAD MEN ONLY—$12.00 per copy.

ORDER FROM CYCLOPEDIA DEPT., SIMMONS-BOARDMAN PUBLISHING CORPORATION, 30 CHURCH ST., NEW YORK, N.Y. 10007

RAILROAD ADVISOR
needed for
VIETNAM

To provide technical assistance Vietnam RR officials on construction, reconstruction, maintenance on all RR facilities; also preparation specifications and recommendations purchase and use commodities.
REQUIRED: Ten years recent experience U.S. railroads as Roadmaster or Asst. Division Engineer plus B.S. in C.E.; 5 yrs. U.S. citizenship.

$14,000 to $17,000

per year plus 25% hardship bonus; furnished quarters; 18-months overseas tour without dependents (separation allowance for dependents).
TO APPLY: Send resume to VIETNAM RECRUITMENT, AGENCY FOR INTERNATIONAL DEVELOPMENT, U.S. Department of State, WASHINGTON, D.C. 20523.
For additional details, requirements, and benefits TELEPHONE COLLECT (202) 383-6119.

A.I.D. Is An Equal Opportunity Employer

Advertisers' Index

Bethlehem Steel Corporation 22-23
Broderick & Bascom Rope Co. ..... BC
Edgewater Corporation ..... IFC
General American Transportation Corp., Tank Car Division 18-19
International Railway Journal 9
Lenkurt Electric Company 21
W. H. Miner, Inc. 30-31
New Departure/Hyatt Bearings, General Motors Corporation 26-27
Railway Classics 42
Railway Educational Bureau, The 42
Servo Corporation of America 3
Sinclair Refining Company 24-25
Waugh Equipment Company ..... IBC
United States Steel Corporation 10-11
WABCO-Westinghouse Air Brake Division 34-35
Woodings-Verona Tool Works 36

IF YOU ARE MOVING . . .

ATTACH ADDRESS LABEL HERE

We need 5 weeks notice before change of address becomes effective. Attach mailing label here (but in any case give us complete old address) and write new address below. Mail to:

RAILWAY AGE
P.O. Box 961 Bristol, Conn. 06010

Name .....
Address .....
City, State, ZIP .....

LOCOMOTIVES • LOCOMOTIVE CRANES
All Types of Cars • Bought—Sold—Rented
Call Murray Grainger (201)743-8700
CAPITAL EQUIPMENT
P.O. Box 591 Bloomfield, N.J. 07003

Advertising Sales Department

C. J. Fisher, vice president—sales, Chicago

New York, N. Y. 10007,
30 Church St., (212) 964-3060
W. A. Cubbage—regional sales manager
Charles E. Keil—district manager

Chicago, Ill. 60604,
14 E. Jackson Blvd.
(312) 427-3501
K. F. Sheeran—regional vice president;
John M. Brennan—regional sales manager
Wm. J. Lyneis
Ross Mandic
—district managers

Lakewood, Ohio 44107,
12700 Lake Ave., Apt. 1310
(216) 226-8038
Harry H. Melville—vice president

Pittsburgh, Pa. 15219, Room 720,
(412) 471-7871
Frick Building
Ronald M. Giallonardo—regional sales manager

Atlanta, Ga. 30309,
22 Eighth St., N. E.,
TRinity 2-6720—J. S. Crane

Dallas, Tex. 75206
Noel Page Building
6400 N. Central Expressway
(214) 361-6972
Joseph Sanders

Los Angeles, Cal. 90017,
1313 West Eighth St.
(213) 483-8414
Fred Klaner, Jr.

San Francisco, Cal. 94133,
515 Pacific Ave.
(415) 421-7004
Lewis A. Vogler & Co.

London S. W. 1, England
TRafalgar 6318
67/68 Jermyn St., St. James's
Max F. Holsinger, Peter Clifton, Alan Berg

Manchester 22, England
Haletop
Wythenshawe Civic Center
Ian Goulden

Paris, 8e, France
70 Rue de Ponthieu
Stephen Brown-Joussard

4 Düsseldorf-Rath
Eitelstrasse 32
Max F. Holsinger,
E. Hillerbrand, Herbert Haibt,
Reinhard Schomburg

Tokyo, Japan
Sun Gain Shia, Ltd.
Shiba Nikkatsu Bldg.
13, Shiba Park
Minato-Ku
C. H. Yiu, Managing Director

VIEWPOINT

What's being done about the ACI labeling deadline?

People who watch trains—yard clerks, tower operators, railway editors, motorists stuck at grade crossings, people like that—might be pardoned, today, for asking a simple question: What is this thing called ACI?

Industry spokesmen have talked in glowing terms of automatic car identification. Railroad people and their customers have been told of the great things ACI will be doing, come Jan. 1, 1970, when a nationwide system goes into effect.

There isn't much doubt that the ACI system, Sylvania's KarTrak, is capable of doing great things, of making greater things possible. But ACI won't work at all, without such things as scanners and retroreflective labels and associated communications and data-processing equipment.

This is October 1968, just a bit more than 14 months from the time ACI is supposed to begin functioning. This is October 1968, just about a year after the AAR announced acceptance of the KarTrak system. And, as even casual train-watchers might now suspect, ACI won't come near making the Jan. 1, 1970, deadline unless railroads step up the pace of action—and step it up sharply, (*see page 29*).

Thus far, about 385,000 car sets of labels have been delivered to the railroads. It's estimated that 700,000 more sets will be available before the end of this year. How many freight cars have been labeled? About 35,000—out of a fleet of 1.8 million.

There have been problems. Many major roads have flagged-out part or all of their fleets for home-road labeling. This is understandable, up to a point—but as a permanent arrangement, it won't work, and so after next Jan. 1 all cars become fair-game for labeling wherever they're found.

THE WEATHER PROBLEM CAN BE SOLVED

Weather may become another problem. Label modules are not supposed to be mounted when the temperature dips below 50 degrees, and winter is indeed on its way. Some cars will be shopped, in the normal course of things, and can be direct-labeled. For many cars, however, the labels will have to be applied sandwich-fashion—modules on a plate, plate attached to the carside. In any event, the weather problem isn't insoluble.

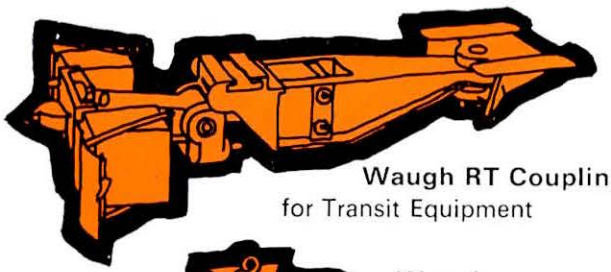
Then there are other concerns. Scanners have to be placed. They're expensive. Nobody wants to over-buy, or over-lease. In terminal areas, scanner-location problems are compounded by the complexity of operations. Back on the labeling front, there's debate about the level of charges for foreign-car marking. Is it too low, too high or, miracle of miracles, just right?

What happens now? Well, putting labels on 1.8 million freight cars (less than 35,000 already marked) is a big job, but not an impossible one in the time remaining. It's assumed that the manufacturers of the ACI gear can deliver the goods on schedule. The problem, now, seems to lie with the carriers. Maybe the delays can be laid to budgetary restrictions, maybe there's just a certain inertia to be overcome. But explanations will be embarrassing, if Jan. 1, 1970, comes and goes and ACI isn't working. And, where deadlines are concerned, time passes so quickly. . .

IF IT ROLLS ON RAILS... ....IT SHOULD BE CUSHIONED BY WAUGH

Waugh has over 40 years experience in meeting the exacting requirements of railroad car cushioning. All products are designed for the ultimate efficiency, to help cut costs and to be ruggedly dependable. They also meet A.A.R. specifications where applicable. Waugh Equipment—just naturally a part of progress.

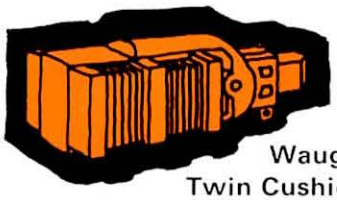
Details and Brochures Available on all Products



Waugh RT Couplings
for Transit Equipment

Waugh
DYNACOUPLER®
for Laboratory
Test and
Dynamometer Cars

Waugh Center Castings
for all Cushioned
Underframe Cars



Waugh
Twin Cushion Draft Gears

Waugh
Draft Gears
All A.A.R. Approved

Waugh Caboose Cushion Underframes
for New Cars or Conversions
Hydra Cushion Underframes

If it rolls on rails . . .
WAUGH
. . . it should be cushioned by Waugh

WAUGH EQUIPMENT COMPANY
SUBSIDIARY OF DRESSER INDUSTRIES, INC.
332 S. Michigan Avenue
Chicago, Illinois 60604 312 / 939-1280

MEMBER RPI

SYMINGTON WAYNE TRANSPORTATION EQUIPMENT

Sales offices coast to coast and in Canada • New York • Philadelphia • Roanoke • St. Louis • San Francisco • Montreal

Circle 2 on coupon page 41

YELLOW STRAND WIRE ROPE

"POWERSTEEL" WIRE ROPE

first choice

of veteran wire rope specialists!

Yellow Strand®
WIRE ROPE / SLINGS

Old hands in the business of buying wire rope just naturally specify Yellow Strand. Since 1876, this outstanding wire rope has enjoyed an enviable reputation for dependable, unsurpassed performance on the job.

No matter how tough the application, there's a Yellow Strand "tailor made" for each job — extra-strength "POWERSTEEL" for the most demanding applications, famous Yellow Strand for an unlimited variety of uses.

And when Yellow Strand Wire Rope is needed "yesterday," a nationwide network of over 400 distributors assures prompt, close-by delivery. No costly delays . . . no unnecessary downtime.

Small wonder that veteran wire rope men prefer Yellow Strand.

BRODERICK & BASCOM ROPE CO./GENERAL OFFICE: 10440 TRENTON AVE./ST. LOUIS, MO. 63132